

Total Quality Management and hospital nursing: an integrative literature review

Gestão da Qualidade Total e enfermagem hospitalar: uma revisão integrativa de literatura
Gestión de Calidad Total y enfermería hospitalaria: una revisión integradora de literatura

Dagmar Willamowius Vituri¹, Yolanda Dora Martinez Évora¹

¹Universidade de São Paulo, Ribeirão Preto Nursing School,
Postgraduation Program in Fundamental Nursing. Ribeirão Preto, São Paulo, Brazil.

How to cite this article:

Vituri DW, Évora YDM. Total Quality Management and hospital nursing: an integrative literature review.
Rev Bras Enferm. 2015;68(5):660-7. DOI: <http://dx.doi.org/10.1590/0034-7167.2015680525i>

Submission: 11-04-2014 Approval: 07-09-2015

ABSTRACT

Objective: to identify the available evidence in the literature on Total Quality Management in nursing administration. **Method:** integrative literature review of full text articles in Portuguese, English and Spanish, published between 2000 and 2011 in the LILACS, MEDLINE, SciELO and PubMed databases. **Results:** the sample comprises 24 periodical articles grouped by the following thematic categories: Theoretical assumptions; Practical application and Quality indicators. Despite the criticism of models derived from classic administration theories, experiences of success with the deployment of TQM have already marked the health and nursing setting in Brazil. **Conclusion:** Total Quality Management in managing of nursing care has being fully used in some health institutions, while others have adopted several of its principles. Two of the twenty four articles are intervention studies, which characterizes the necessity for clinical research in this area.

Key words: Nursing; Total Quality; Quality Management.

RESUMO

Objetivo: identificar evidências disponíveis na literatura sobre a Gestão da Qualidade Total, no contexto do gerenciamento de enfermagem. **Método:** revisão integrativa de literatura nas bases de dados LILACS, MEDLINE, SciELO e PubMed, de artigos publicados entre 2000 e 2011, em português, inglês e espanhol, disponíveis na íntegra nos meios eletrônicos. **Resultados:** compuseram a amostra 24 artigos de periódicos, agrupados nas categorias temáticas: Pressupostos teóricos; Aplicação prática e Indicadores de qualidade. Apesar das críticas aos modelos derivados das teorias administrativas clássicas, experiências de sucesso com a implantação da GQT já marcam o cenário de saúde e de enfermagem no Brasil. **Conclusão:** a Gestão da Qualidade Total no gerenciamento da assistência de enfermagem tem sido utilizada integralmente em algumas instituições de saúde, enquanto outras adotam vários de seus princípios. Dos vinte e quatro artigos analisados, dois são estudos de intervenção, caracterizando a necessidade do desenvolvimento de pesquisas clínicas nesta área.

Descritores: Enfermagem; Qualidade Total; Gestão da Qualidade.

RESUMEN

Objetivo: identificar evidencias disponibles en la literatura sobre Gestión de Calidad Total – GCT en el contexto de la gestión de enfermería. **Método:** revisión integradora de literatura en las bases de datos LILACS, MEDLINE, SciELO y PubMed, con artículos publicados entre 2000 y 2011, en portugués, inglés y español, disponibles íntegramente en los medios electrónicos. **Resultados:** muestra con 24 artículos, agrupados en categorías temáticas: Presupuestos teóricos; Aplicación práctica e Indicadores de calidad. A pesar de las críticas a los modelos derivados de las teorías administrativas clásicas, experiencias exitosas con la implantación de la GCT ya marcan el escenario de la salud y la enfermería en Brasil. **Conclusión:** la Gestión de Calidad Total en la gestión de la atención de enfermería se ha utilizado plenamente en algunas instituciones de salud, mientras que otros adoptan muchos de sus principios. De los veinticuatro artículos, dos son estudios de intervención, lo que caracteriza la necesidad de desarrollar investigaciones clínicas en esta área.

Palabras clave: Enfermería; Calidad Total; Gestión de Calidad.

CORRESPONDING AUTHOR Dagmar Willamowius Vituri E-mail: dagvituri@gmail.com

INTRODUCTION

Healthcare reaches nowadays a defying and complex level for suppliers, leaderships and also employees⁽¹⁾. The quality and care costs, customer satisfaction and operational efficiency has been the main priority of top organizations⁽²⁾.

Total Management Quality (TQM), as a new management model, changed the focus of the analysis of product or service to a quality system conception, and it influences the organizational culture as attitude and behavior changes are now required towards performance commitment, self-control and processes enhancement⁽³⁾.

Brazil's insertion in this flow occurred since 1980, although it was noticed only in the 1990s, whereas of the discussion about health policies context in the country expanded, and due the lack of financial resources and increase of products and services costs, comparing to the total spend with health⁽³⁾. The adoption of TQM in health institutes was also influenced by pressures from part of the government, industries, customers and the medicine technological evolution⁽⁴⁾.

According to area experts, there are basically two views on TQM: the first one would be a new management model and work structure, consistently used as flexible specialization, and the second one would be that the structure given by TQM should be only a new version of old theories⁽⁵⁾.

Despite criticism regarding the usage of models based on classical and "stiff" administrative theories in health⁽⁶⁾, researchers defend the service sector aggregated to a product or not, in a highlight role in this new management model, for the inherited quality concerns of a product usually are the same, and so the offered services comes to be a competitive factor, and therefore it would be indispensable to evaluate its quality⁽⁷⁾.

Nursing care has always been aimed to quality matter, since the times of Florence Nightingale. Currently, on the globalized world, nursing care is developing as a profession with an approach to care quality through evaluation and control of structure, process and care result components⁽⁴⁾.

Facing an increasing worry with health care quality (a quality conception as a patients' right, and considering TQM philosophy as a presumption to design, control and improve processes, topics that are fundamental for the nursing care assistance excellence), this study has as goal the following: to perform a whole review on the integrative literature of hospital nursing care to identify the available evidences about TQM on the context of nursing care management between the years of 2000 and 2011.

A study of this nature shows its importance when considering the process of decision-making based on evidences, since from its development it is believed to be possible to draw attention from the nursing care professional for the potential improvement in assistance care management, thus attention to health, which this model adoption provides and so as highlight the importance of the practioner during the process.

It is expected with the development of this study that the instinctive or unnoticed usage of TQM values and tools may

be replaced by intention of adopting a management model turned to processes control, continuous improve and customer satisfaction.

METHOD

This is an integrative literature review. This method contributes to deepen the knowledge about the researched subject, making evidences of literature *corpus* conclusions about a particular phenomenon, as well as making possible to identify knowledge spaces about such phenomenon in study⁽⁸⁾. For its development the following steps were taken⁽⁹⁾:

Theme and research topic draft identification

This study has been shaped to the shocking question: "What was published in nursing care scientific literature during the period of 2000 to 2011, regarding hospital nursing care management and Total Quality Management?".

The used databases were LILACS (Latin American and Caribbean Literature in Health Science), MEDLINE (Medical Literature Analysis and Retrieval System Online), SciELO (Scientific Electronic Library Online) and PubMed (National Library of Medicine).

The descriptors used for publications' researches on the LILACS, MEDLINE and SciELO databases were Descriptors in Health Sciences (DeCS) "Total Quality", "Quality Management", "Health Care Quality Indicators", "Nursing Care Audit and "Nursing Care" and/or its respective DECS descriptors categories: health evaluation; health services administration; quality assurance of health care; health care quality; processes evaluation and results; total quality management. For the database PubMed, terms from the *Medical Subject Headings* (Mesh) were used "Total Quality Management", "Quality Control", "Quality Indicators, Health Care", "Nursing Audit" e "Nursing" and/or MeSH *Tree Structures: Health Services Administration – Quality of Health Career - Quality Improvement*. The research took place during the period of December 27th to 30th, 2011 and December, 2014. The descriptors were combined in each database using Boolean operators AND and OR, combining the descriptors to the pairs and altogether at the same time up to a quantity and specifications of the retrieved articles.

Sample

Inclusion criteria were established such as: articles published during the period of 2000 to 2011 on the following languages; Portuguese, English and Spanish, fully available in electronic means and linked to one or more of the mentioned descriptors. Therefore, articles without those criteria were not taken into consideration.

After research results, we proceeded to the reading of the titles, descriptors and abstracts of articles about the subject on the nursing care and hospital assistance view focusing on care management, human and material resources (1st exclusion). Afterwards, the retrieval of full available material took place in electronic means. Table 1 (below) presents the quantities of retrieved articles.

Table 1 - Number of retrieved publications and pre-selected to analysis from LILACS, MEDLINE, SciELO and PubMed databases 2000-2011

Publications	BASES									
	LILACS		MEDLINE		PubMed		SciELO		Total	
	n	%	n	%	n	%	n	%	n	%
Retrieved	40	100	137	100	76	100	1.146	100	1.399	100
1st Exclusion	28	70	128	93	60	79	1.126	98	1.342	96
Pre-Selected Total	12	30	09	07	16	21	20	02	57	04

Studies categorization

The articles were analyzed and sorted by two researchers, a nurse working towards her doctorate in Sciences and a Doctor Professor from the Nursing Department of the Ribeirão Preto Nursing School. After this phase, the extraction of information, structure and summarization and the formation of data base occurred. For the system of selected articles evaluation, the informatios were extracted through a categorization table adapted for the validated instrument by Ursi⁽¹⁰⁾.

To determine the degree of evidence it was used a seven level hierarchy system⁽²⁾: level 1 – systematic reviews with or without meta-analyses of randomized clinical trials and guidelines based on systematic reviews of randomized clinical trials; level 2 – at least one randomized clinical trial; level 3 – non randomized clinical trials; level 4 – case studies and reduction; level 5 – systematic reviews of descriptive or qualitative studies; level 6 – only one qualitative or quantitative study; and level 7 – experts’ opinion.

The reasons for excluding retrieved articles were: 10 replicas, 13 articles not fully available, 10 thesis, 2 International Organization

Manuals and 1,307 articles not related to nursing care and hospital care. After this phase, it took place the full reading of pre-selected material and more 33 articles have been excluded for not answering the study’s question (2nd exclusion). The following flow chart (Figure 1) presents the used procedures from the material retrieved to analysis, which resulted in a sample of 24 articles.

Studies included on review evaluation

After the categorization of the studies folled the evaluation of publications, made by the researchers who had the mentioned question as subsidy. The analysis had as focus the objectives, methodologies and conclusions.

Discussion and results interpretation

This phase pursued to establish the convergence matters between the articles as well as to point out the relation among findings and research question. The articles were bundled into the following categories: A- Theoretical presumptions teóricos; B- Practical application and C- Quality indicators.

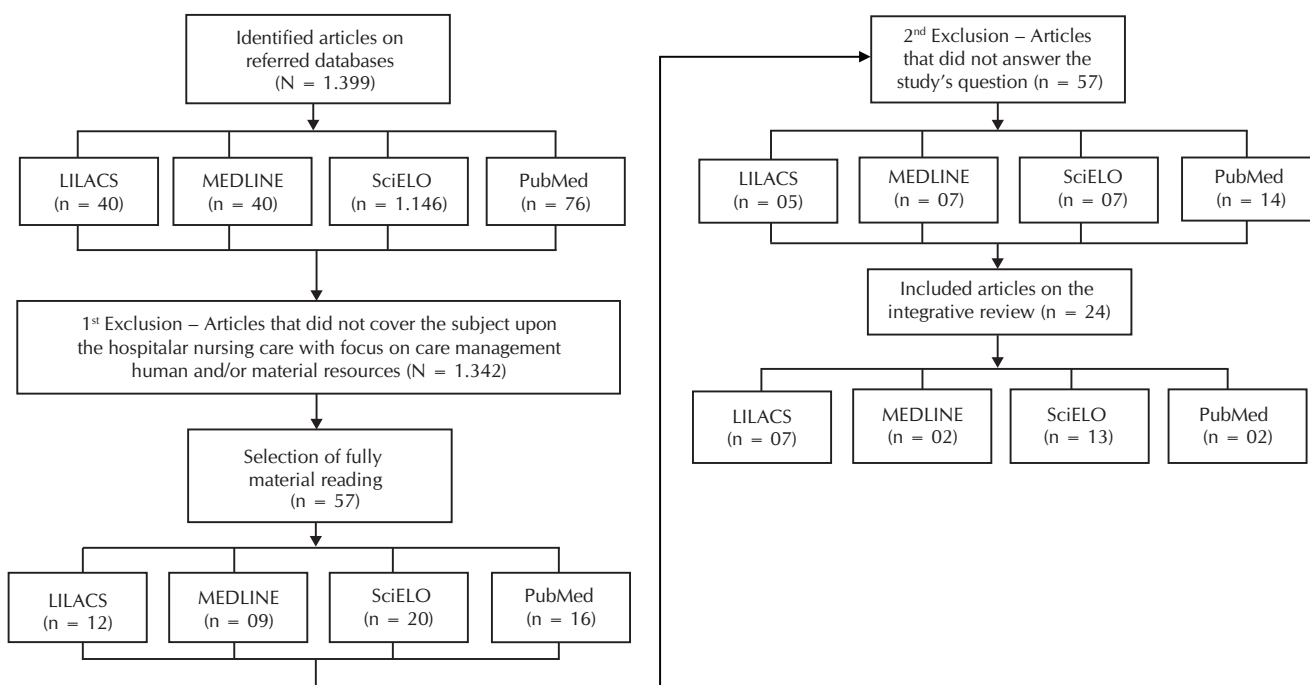


Figure 1 - Representative flow chart of the research made upon LILACS, MEDLINE, SciELO and PubMed databases 2000-2011

RESULTS

Demonstrated knowledge synthesis

Regarding the evidence level of the analyzed studies: 7 (29%) were on level 7; 11 (46%) on level 6; 4 (17%) on level 5; and 2 (8%) on level 4, displaying the lack of intervention studies on the nursing care area, specifically about TQM usage. It has been noted a significant number of descriptive and exploratory studies, most of them from 2006 on, assuming a timid experience of the profession on the use of this management model. Those findings are allusive to the nurse participation during a strategic decision on the institution to still be in an early stage.

Category A – Theoretical presumptions

Over the last decades, quality assurance has been of big concern to health organizations, because, besides being a requirement of economic survival⁽¹¹⁻¹⁴⁾, due to higher requests from consumers⁽¹¹⁾, it is an ethic, legal and social rights matter⁽¹⁵⁻²¹⁾. It goes through the full customer's satisfaction and the reduction of risks related to health care to a minimum which is acceptable⁽²²⁻²⁴⁾. It also applies to the whole organization's commitment with the process or continuous improvement^(11,13,22,25-27).

Amongst the main principles which guide TQM are: to identify and prioritize the problems, to manage the processes⁽²⁵⁻²⁸⁾, to appreciate customers and professionals^(25,28-29), to prevent mistakes and set targets⁽²⁸⁾, by having a participative management⁽²⁵⁾. It uses waste reduction concepts, measure instruments, commitment and the integration of all the members in the organization⁽¹¹⁾.

The TQM had its development in an industrial context and many scholars proposed concepts, methods and techniques to obtain and keep its quality⁽¹⁶⁾. Regarding the health area, doctor Donabedian stood out, who applied Theory of Systems and proposed the trinity structure, process and results^(15,17-21,23-24,26,30-31); as well as doctor Donald Berwick, coordinator of a study which resulted in the reduction of costs, improvement of quality and rise of productivity, which proved that TQM can be used in the health sector⁽¹³⁾.

In Nursing, the forerunner of quality and safety of care was Florence Nightingale^(13-15,17,24,32), and the nursing process emerged as a guide for the preparation of patterns and evaluation of assistance, defining the range of the practice and promoting quality care^(15,17).

In Brazil, the model of Hospital Accreditation was a milestone in the search for quality improvement, since it assumed patterns and criteria of assessment for health institutions, revealing quality with evidence, by using indicators^(12,15,17,19-20,22-24,26,29,32-33). On this perspective, the quality tools emerged as an instrument for the realization of evaluative procedures, keeping in mind the range of the goals or institutional quality targets, because, they eliminate the need of defining, measuring, analyzing and proposing solutions for the problems⁽²³⁾.

The evaluation, as a TQM strategy, is a powerful instrument and, in this way, must be unbroken, systemic and based on structure indicators, process and result, from the comparison of provided care with vested quality patterns^(12,14-15,17,20-21,23,26-27). It must not be used just as a methodological exercise, as its results must subsidize the management of the work process^(14,27,33).

Educative actions and of constant training are also vital in this process^(14-15,17,20-21,29,32).

It is good to emphasize, however, that assessing and capacitating will not assure better quality, as the TQM philosophy does not coadunate with the traditional management model, still strongly present in health institutions. It is fundamental that, in parallel, the conditions of the assistance provision are improved, there must have an appreciation of the professional, the customer must be respected as a consumer and the constant training involves not only technical and scientific aspects, but also ethic and human subjects^(15,19,21,28). Above all, it is necessary to adopt a responsible policy of Human Resources establishment and the restructuring of the health sector in Brazil^(15,21). After all, quality must not be seen as just a target, but as a continuous process⁽¹⁷⁾.

Category B – Practical applications

Published studies about TQM have brought results, which vary from a total uncertainty to a complete fascination. Many are methodologically questionable, resulting in the lack of consistent evidence on the positivity of the process about the improvement of quality; however, there has been a tendency in developing controlled studies in the sector⁽¹⁶⁾. In the search for quality context, directly or indirectly subsidized by the hospital certification processes⁽¹⁸⁻²⁰⁾, nurses focus their attention on TQM for the care management. They believe that this approach improves the technical and human qualities of professionals^(25,28), just like, the customers' satisfaction⁽²⁸⁾, even by understanding that many results of care depend on the interrelation of other sectors of the institution⁽¹⁸⁻¹⁹⁾.

The applicability of principles and tools of TQM was experimented in a study developed in two hospitals in the state of São Paulo, from the implementation of a method called Quality Function Unfolding - DFQ. This method consolidates the TQM as it operates the planning of quality by unfolding and prioritizing information and the activities⁽²⁸⁾.

A bibliographic review, which had as its goal to present the experience of hospitals and Brazilian nursing services in TQM programs from 1990, has brought positive experience with the implementation of the principles of this philosophy in the restructuring of the management of four health institutions. They obtained a better performance in relation to hospital statistical indicators, processes improvement, power decentralization, a more efficient control, appreciation of the worker, user satisfaction and acknowledgment of the internal and external client, creating a credibility in this management model to be applied in the health sector⁽¹³⁾.

A study developed in a credited private hospital in the countryside of São Paulo had as its goal to identify the opinion of an 18 nurses sample about the importance of indicators for the assessment of quality assistance. It observed a valorization of those who are related to specific assistance processes, satisfaction of clients and personal scaling. The conclusion was that the certification process contributed for an understanding about the necessity of using indicators for assistance quality improvement⁽¹⁸⁾.

In another study, 57 nurses from a hospital in São Paulo were interviewed with the goal to assess the method of implementation of TQM, its participation and usage of the 14

principles of Deming, of which the higher score was “Establish training”. The authors concluded that TQM provides tools for the necessary changes, implementation of the new methodologies and clients’ satisfaction⁽¹¹⁾.

A similar study was made in a countryside hospital in the state of São Paulo, to get to know the opinion of 17 nurses about the TQM implanted in the institution. The three higher scored quality principles of Deming were “Adopt and instate leadership”, “institute training” and “purpose perseverance”. The authors concluded about the application of the philosophy in nursing services⁽¹⁹⁾.

A research with 19 nurses in private countryside hospital in São Paulo aimed to diagnose the perception about the quality processes in nursing applied to assistance improvement. The outcome revealed that the indicator are used in service management and, effectively, improve the assistance practice and that the use of quality tools facilitates the implementation of improving action⁽²⁰⁾.

A control case study was developed with two groups of Swedish nurses, with basic formation in improvement of quality and audit. It had as its goal to investigate the strategies that support and oriented for the progress and sustainability of the program; after four year of a qualification course, being the progression of the cycle of quality improvement (PDSA - Plan-Do-Study-Act - Deming) the measured outcome. The authors concluded that the context of national cooperation worked as a powerful boost for the performance of the audit on a local level, motivating the group to develop the activities and the improvement of quality fostered self-sufficiency to the nurse and better opportunity to influence service changes⁽¹⁶⁾.

A qualitative study was made in a public teaching hospital in São Paulo, with seven servers of a health multi-professional team in order to understand its perception about the implementation of a quality management tool. An improvement in communication among the areas of the institution, better engagement and commitment of workers, interaction, acknowledge and, eventually, enhancement of processes, amongst other benefits was observed⁽²³⁾.

The quality of care to health is related to the matter of social responsibility of the professional and services to the community and it is under direct influence of variants loaded with subjectivity and lack of governability, as for instance, the intrinsic conditions to human life, the social iniquities and the disparities about the distribution of resources⁽²⁴⁾. Thus, it becomes important to emphasize that, for the success of the implementation of TQM in the health sector, it is indispensable to develop the technical and human skills of those who act, interact and react to the institutional context⁽²⁵⁾.

Category C – Quality indicators

Assessing quality of care is not a simple task, however, of extreme importance as the results lean on managers who take decisions, allow the monitoring of the quality and the identification of opportunities of improvement and readjustment of the targets. For that, the measures and indicators must be valid and suitable to the reality of the institution^(17,20,22,29,31,34), subsidized in the pillars of structure, process and results^(17,20,22-23,31) and adjusted to the binomial management and service effectiveness⁽³³⁾.

In Nursing, there is a growing interest in measuring the quality of care^(22,31) boosted by the need of managers to determine and measure this quality, as the English health care system already foresees the payment for performance, rewarding excellence⁽³¹⁾.

The American Nursing Association - ANA, in a context of restructuring of the work force in hospitals, developed quality indicators that assess aspects of structure, process and result^(14,30). They make part of a cooperative program among many states for the development of researches and the assembling of a database - National Database of Nursing Quality Indicators (NDNQI)⁽³⁰⁾. Its impact was so positive that, in the United Kingdom, there are efforts to develop a similar database to the one created by ANA⁽³¹⁾.

A study taken in a general ICU with 25 beds in the metropolitan region of São Paulo had as its goals to develop operational indicators of efficiency and effectiveness of the nursing team. It related the amount of prescribed procedures with the completed or suspended ones (effectiveness) and the standard amount of inputs versus the consumed ones, analyzing the constant price (efficiency). The authors concluded that the information generated by the usage of those indicators allow managers to have access to consistent data in order to make decisions⁽³³⁾.

A study investigated the perception of nurses of a private hospital in the countryside of São Paulo about the usage of quality indicators when improving assistance; it revealed as higher relevance indicators the nursing technical failure index, followed by the severe adverse events index and the patient classification system⁽²⁰⁾.

TQM also predicts people’s satisfaction, internal and external clients. Another indicator of extreme importance is work satisfaction; it was measured in an ICU with 4 beds in the countryside of the state of Paraná. A survey called Index of Work Satisfaction (IWS) took place; it was brought and validated in Brazil as Index of Work Satisfaction (IST), in a population of 8 nurses and 9 nursing assistants. The results showed an IST of 12.08 for the nurses and 11.88 for the assistants, very low scores according to the adopted referential. From the implementation of actions of service organizations or work, it was observed an increase of IST. The authors concluded that acting based on TQM has improved the team satisfaction level⁽³⁴⁾.

The use of indicators allows us to measure results, to orientate the necessary changes, to guarantee safety^(14,22,24,30) and care provision based on evidence^(24,30). Nonetheless, despite the general and increasing usage, there are criticisms in relation to the use of metrics in nursing. One of them is the waste of time when feeding systems instead of a more direct care of the patient⁽³¹⁾. However, from the constant quality perspective, investments in assessments and monitoring are fundamental for the prevention of health care mistakes⁽²²⁾. One cannot manage, effectively and efficiently, what one does not know.

In this context, the institutional certification programs have reinforced the indispensable role of nurses in this process^(14,29,32). The reasons for that are their permanence beside the patient is constant and since their academic degree, this professional is used to management subjects and clinic audit⁽¹⁴⁾.

Still on the role of nursing in the process of quality improvement, an analysis of eight institutional assessment models, from

registered companies by the National Accreditation Organization, determined 79 items of evaluation focused on nursing assistance processes, besides management, teaching and researching ones⁽²⁹⁾. A similar study analyzed the existence of assessment criteria focused on nursing results and it detected 24 related items, emphasizing the necessity of improvement as for their accuracy⁽²⁶⁾.

DISCUSSION

In Brazil, the term "Health Crisis" is common on the news, due to a context of lack of investment and inefficient consumption of resources, when not misappropriated⁽¹⁾. This scenario reasserts the need of management models, like TQM, which improves the application of resources and increase productivity and clients' satisfaction⁽³⁵⁾.

TQM has been honored by many authors, but also criticized by others⁽³⁾. However, successful practices with the implementation of this model, being as a whole of partially, are already present in the health and nursing scenario in Brazil^(5,7,35).

The evaluation, by using assistance quality indicators, like a TQM tool, has been adopted by nursing in order to measure the performance of the team and establish targets and strategies of continuous improvement, keeping in mind the quality and safety of care^(3,36).

From the systemic usage of the principles and the TQM tool, the nurse has the possibility of analyzing the structure, the process and the result of care and look for the causes of misappropriation and failures. Through teaching strategies, it is possible to develop people technically speaking, promoting a higher client's satisfaction^(4,11). Besides, the use of QTM meets the interest of managers in measuring care quality, as both efficiency and effectiveness of nursing management affects directly the costs of care, due to the large amount of inputs and procedures involved in the processes developed by the team⁽²⁾.

In order to make the QTM principles be incorporated successfully in the Brazilian health institutions, investments in management capacitation are necessary⁽¹⁾. In the Brazilian context, it is possible to observe a trend towards the strengthening of this strategy via the linkage of funding to the indicators and targets achievement⁽³⁷⁾. The importance of the nursing professional in this process is relevant due to the fact that the majority of actions in health care, in a hospital matter, have a direct engagement of the nurse team.

From the analysis of database material, it is possible to observe the importance of developed studies, mainly because; we observe a description on the improvement of the results when implementing this model of management in dealing

with nursing. However, it is important to develop new studies in order to analyze, in medium and long term, its sustainability and impact in care results.

From the 24 analyzed articles, only two are intervention studies, which flags a study restriction, inasmuch as the strength of the recovered articles' scientific evidence is discreet. The findings are important for the construction of knowledge in the sector and as an evidence base for the support of the practice. It is recommended to develop a larger number of clinic researches under the nursing subject and, mainly, these studies can be replicated in hospital institutions throughout the national territory. Another study limitation is the small number of international publications, such as the reduced number of articles that meet the study matter. It is possible the reason for that the use of descriptors, by the exclusion of researches that did not use them for the indexation.

In this scenario of urgency for quality, nursing goes beyond the goal of increasing numbers, in order to find a position in a transforming environment, aiming at a safe, quality care, with fair and accessible prices⁽³⁸⁾. Thus, the QTM model, with its two decades history background in Brazil⁽¹⁾, remains up-to-date and promising for the efficient and effective management of nursing assistance, providing tools and instruments of continuous improvement and client's satisfaction. Therefore, it is up to the nursing service of each institution to make its path in the search of these goals, according to the context, their possibilities and values.

CONCLUSION

This integrative review has provided scientific evidences about successful experiences when using the principles and tools of Total Quality Management, and ratifying its applicability on the health care area, and mainly in nursing care. Based on findings, the importance of the nursing practitioner was highlighted in this context, reinforcing the need to take notice in this practitioner as capable of making strategic decisions on the institution.

From the evidences about the relation between managerial approach and hospital nursing care management, it is possible to conclude that efforts must be taken for overcome the initial resistance to adopt models which originally were developed to business or industrial management in the health care area. The pursue of excellence, efficiency and effectiveness is essential in what regards the current complexity of processes and existing technologies in hospital institutions, allied to lack of resources and a health care demand increase.

REFERENCES

1. Medici A. Proposta para melhorar a cobertura, a eficiência e a qualidade no setor saúde. In: Bacha EL, Schwartzman S.(editors). Brasil: a nova agenda social [Internet]. São Paulo:LTC;2011. [cited 2012 Nov 01];cap 1, p 23-93.Available from: <http://www.schwartzman.org.br/simon/agenda1.pdf>
2. Santos D, Carvalho E. Analysis of cost in the nursing: integrative review. Online Braz J Nurs [Internet]. 2008 [cited 2012 Sep 29];7(3). Available from: <http://www.objnursing.uff.br/index.php/nursing/article/view/1747>
3. Bueno M. Gestão pela qualidade total: uma estratégia

- administrativa. *Revista do Centro do ensino superior de Catalão* [Internet]. 2004 [cited 2014 Dec 16]; Available from: http://portal.iefp.pt/xeobd/attachfileu.jsp?look_parentBoui=25801884&att_display=n&att_download=y
4. Haddad MCL, Évora YDM. Qualidade da assistência de enfermagem: a opinião do paciente internado em hospital universitário público. *Ciênc Cuid Saúde* [Internet]. 2008 [cited 2012 May 25];7 (Supl1):45-52. Available from: <http://periodicos.uem.br/ojs/index.php/CiencCuidSaude/article/view/6559>
 5. Reis ALPP, Gomes AF. Uma revisitação aos modelos de gestão. *Cadernos de Ciências Sociais Aplicadas* [Internet]. 2008 [cited 2012 Nov 01];4(4):27-44. Available from: <http://periodicos.uesb.br/index.php/cadernodeciencias/article/viewFile/845>
 6. Gurgel Júnior GD, Vieira MMF. Qualidade total e administração hospitalar: explorando disjunções conceituais. *Ciênc Saúde Colet* [Internet]. 2002 [cited 2014 Dec 16];7(2):325-34. Available from: <http://www.scielo.br/pdf/csc/v7n2/10251.pdf>
 7. Hora H RM, Monteiro GTR, Arica J. Confiabilidade em questionários para qualidade: um estudo com o Coeficiente Alfa de Cronbach. *Produto & Produção* [Internet]. 2010 [cited 2014 Dec 16];11(2):85-103. Available from: <http://seer.ufrgs.br/index.php/ProdutoProducao/article/view/9321/8252>
 8. Crossetti MGO. Revisão integrativa de pesquisa na enfermagem: o rigor científico que lhe é exigido [editorial]. *Rev Gaúcha Enferm* [Internet]. 2012 [cited 2014 Dec 16];33(2):8-9. Available from: <http://www.scielo.br/pdf/rgef/v33n2/01.pdf>
 9. Mendes KDS, Silveira RCCP, Galvão CM. [Integrative literature review: a research method to incorporate evidence in health care and nursing]. *Texto Contexto Enferm* [Internet]. 2008 [cited 2012 May 05];17(4):758-764. Available from: <http://www.scielo.br/pdf/tce/v17n4/18.pdf> Portuguese
 10. Ursi ES, Galvão CM. [Perioperative prevention of skin injury: an integrative literature review]. *Rev Latino-Am Enfermagem* [Internet]. 2006 [cited 2012 Feb 19];14(1):124-31. Available from: <http://www.scielo.br/pdf/rlae/v14n1/v14n1a17.pdf> Portuguese
 11. Antunes AV, Trevisan MA. Gerenciamento da qualidade: utilização no serviço de enfermagem. *Rev Latino-Am Enfermagem* [Internet]. 2000 [cited 2014 Dec 15];8(1):35-44. Available from: <http://www.scielo.br/pdf/rlae/v8n1/12432.pdf>
 12. Feldman LB, Gatto MAF, Cunha ICKO. História da evolução da qualidade hospitalar: dos padrões a acreditação. *Acta Paul Enferm* [Internet]. 2005 [cited 2014 Dec 15];18(2):213-219. Available from: <http://www.scielo.br/pdf/ape/v18n2/a15v18n2.pdf>
 13. Balsanelli A P, Jericó MC. Os reflexos da gestão pela qualidade total em instituições hospitalares brasileiras. *Acta Paul Enferm* [Internet]. 2005 [cited 2014 Dec 15];18(4):397-402. Available from: <http://www.scielo.br/pdf/ape/v18n4/a08v18n4.pdf>
 14. Portela OT, Schmidt AS. An evaluation and diagnosis method proposed for hospital management. *Acta Paul Enferm* [Internet]. 2008 [cited 2014 Dec 15];21(spe):198-202. Available from: http://www.scielo.br/pdf/ape/v21nspe/en_a11v21ns.pdf
 15. Adami NPA. Melhoria da qualidade nos serviços de enfermagem. *Acta Paul Enferm* [Internet]. 2000 [cited 2014 Dec 15];13(n.esp.pt.1):190-6. Available from: <http://bases.bireme.br/cgi-bin/wxislind.exe/iah/online?!IstScript=iah/iah.xis&nextAction=lnk&base=LILACS&exprSearch=319423&indexSearch=ID&lang=p>
 16. Wallin L, Boström AM, Harvey G, Wikblad K, Ewald U. Progress of unit based quality improvement: an evaluation of a support strategy. *Qual Saf Health Care* [Internet]. 2002 [cited 2014 Dec 15];11:308-14. Available from: <http://qualitysafety.bmj.com/content/11/4/308.full>
 17. D'Innocenzo M, Adami NP, Cunha ICKO. [The movement for quality in healthcare and nursing services]. *Rev Bras Enferm* [Internet]. 2006 [cited 2014 Nov 24];59(1): 84-8. Available from: <http://www.scielo.br/pdf/reben/v59n1/a16v59n1.pdf> Portuguese
 18. Silva CS, Gabriel CS, Bernardes A, Évora YDM. Opinião do enfermeiro sobre indicadores que avaliam a qualidade na assistência de enfermagem. *Rev Gaúcha Enferm* [Internet]. 2009 [cited 2014 Dec 15];30(2):263-71. Available from: <http://seer.ufrgs.br/index.php/RevistaGauchadeEnfermagem/article/view/7586>
 19. Rocha ESB, Trevizan MA. Quality management at a hospital's nursing service. *Rev Latino-Am Enfermagem* [Internet]. 2009 [cited 2012 May 05];17 (2):240-5. Available from: http://www.scielo.br/pdf/rlae/v17n2/pt_16.pdf
 20. Franco JN, Barros BPA, Vaidotas M, D'Innocenzo M. [Nurses' perception on the results of quality indicators for the improvement of professional practice]. *Rev Bras Enferm* [Internet]. 2010 [cited 2014 Dec 15];63(5): 806-10. Available from: <http://www.scielo.br/pdf/reben/v63n5/18.pdf> Portuguese
 21. Paiva SMA, Silveira CA, Gomes ELR, Tessuto MC, Sartori NR. Management theories in health care. *Rev enferm UERJ* [Internet]. 2010 [cited 2014 Dec 15];18(2):311-6. Available from: <http://www.facenf.uerj.br/v18n2/v18n2a24.pdf>
 22. Padilha KG. [Iatrogenic occurrences and the quality focus]. *Rev Latino-Am Enfermagem* [Internet]. 2001 [cited 2014 Dec 15];9(5):91-6. Available from: <http://www.scielo.br/pdf/rlae/v9n5/7804.pdf> Portuguese
 23. Pertence PP, Melleiro MM. The implementation of a quality management tool at a University Hospital. *Rev Esc Enferm USP* [Internet]. 2010 [cited 2014 Dec 15];44(4):1024-1031. Available from: http://www.scielo.br/pdf/reeusp/v44n4/en_24.pdf
 24. Vargas MA, Albuquerque GL, Erdman AL, Ramos FRS. [Where (and how) do we find quality in the hospital nursing service?]. *Rev Bras Enferm* [Internet]. 2007 [cited 2014 Dec 12];60(3): 339-43. Disponível em: <http://www.scielo.br/pdf/reben/v60n3/a18.pdf> Portuguese
 25. Rego MMS, Porto IS. Implantação de sistemas da qualidade em instituições hospitalares: implicações para a enfermagem. *Acta Paul Enferm* [Internet]. 2005 [cited 2014 Dec 15];18(4):434-8. Available from: <http://www.scielo.br/pdf/ape/v18n4/a13v18n4.pdf>
 26. Feldman LB, Cunha ICKO. [Identification of result evaluation criteria for nursing service in hospital accreditation programs]. *Rev Latino-Am Enfermagem* [Internet]. 2006 [cited 2014 Dec 15];14(4):540-5. Available from: http://www.scielo.br/pdf/rlae/v14n4/es_v14n4a11.pdf Spanish
 27. Lima GO, Cruz RFA, Vale SRM, Carneiro ECRL. Methodology for implementation of quality care in a dialysis center.

- Acta Paul Enferm [Internet]. 2009 [cited 2014 Dec 15];22(n. spe1):580-582. Available from: http://www.scielo.br/pdf/ape/v22nspe1/en_28.pdf
28. Matsuda LM, Évora YDM, Boan FS. [The use of quality function deployment method (QFD) in the nursing service planning]. *Rev Latino-Am Enfermagem* [Internet]. 2000 [cited 2014 Dec 15];8(5): 97-105. Available from: <http://www.scielo.br/pdf/reben/v51n1/v51n1a08.pdf> Portuguese
 29. Cunha ICKO, Feldman LB. [Nursing service assessment: identification of process criteria in hospital accreditation programs]. *Rev Bras Enferm* [Internet]. 2005 [cited 2014 Dec 15];58(1):65-9. Available from: <http://www.scielo.br/pdf/reben/v58n1/a12.pdf> Portuguese
 30. Gallagher RM.;Rowell PA. Claiming the future of nursing through nursing: sensitive quality indicators. *Nurs Adm Q* [Internet]. 2003 [cited 2014 Dec 15];27(4):273-84. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/14649018>
 31. Foulkes M. Nursing metrics: measuring quality in patient care. *Nursing Standard* [Internet]. 2011 [cited 2014 Dec 15];25(42):40-5 Available from: <http://journals.rcni.com/doi/abs/10.7748/ns2011.06.25.42.40.c8582>
 32. Lima SBS, Erdmann AL. [Nursing role during accreditation process of an emergency service]. *Acta Paul Enferm* [Internet]. 2006 [cited 2014 Dec 15];19(3):271-8. Available from: <http://www.scielo.br/pdf/ape/v19n3/a03v19n3.pdf> Portuguese
 33. Munhoz S, Ramos LH, Cunha ICKO. [Efficiency and efficacy of nursing performance in technical procedures]. *Rev Bras Enferm* [Internet] 2008 [cited 2014 Dec 12];61(1):66-70. Available from: <http://www.scielo.br/pdf/reben/v61n1/10.pdf> Portuguese
 34. Matsuda LM, Évora YDM. Ações desenvolvidas para satisfação no trabalho da equipe de enfermagem de uma UTI-Adulto. *Ciência, Cuidado e Saúde* [Internet] 2006 [cited 2014 Nov 12];5(Supl):49-56. Available from: <http://periodicos.uem.br/ojs/index.php/CiencCuidSaude/article/view/5154/3339>
 35. Nascimento IJ, Leitão RER, Vargens OMC. A qualidade nos serviços de saúde pública segundo enfermeiros que gerenciam unidades básicas de saúde. *Rev Enferm UERJ* [Internet]. 2006 [cited 2014 Nov 12];14(3):350-6. Available from: <http://www.facenf.uerj.br/v14n3/v14n3a04.pdf>
 36. Vituri DW, Matsuda LM. Content validation of quality indicators for nursing care evaluation. *Rev Esc. Enferm USP* [Internet]. 2009 [cited 2012 Nov 03];43(2): 429-37. Available from: http://www.scielo.br/pdf/reeusp/v43n2/en_a24v43n2.pdf
 37. Brizola JB, Gil CRR, Cordoni Júnior L. Análise de desempenho de um hospital de ensino antes e após a contratualização com o Sistema Único de Saúde. *Rev Adm Saúde*. 2011;13(50):7:22.
 38. Stokowisck LA. Overhauling nursing education. *Medscape Today News*. 01/28/ 2011 [Internet]. 2011 [cited 2012 May 05]. Available from: <http://www.medscape.com/viewarticle/736236>