

Tracer Methodology and the quality of care: integrative literature review



Método Tracer e a qualidade do cuidado na enfermagem: revisão integrativa da literatura

Método Tracer y la calidad del cuidado: revisión integral de la literatura

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ABSTRACT

Objective: To analyze the scientific literature about the Tracer Method in the area of nursing.

Method: Integrative literature review with 22 articles from the following databases: Latin American and Caribbean Literature in Health Sciences (LILACS); Medical Literature Analysis and Retrieval System Online (Medline/PubMed); Scientific Electronic Library Online (SciELO); Cumulative Index to Nursing & Allied Health Literature (CINAHL) and Web of Science. The search strategy included descriptors and keywords, as follows: Método Tracer, Método Traçador, Método Rastreador, Método de Avaliação, Usuário Guia and Enfermagem correlated and combined with Boolean operators.

Results: Data was organized according to the scenarios where the method was applied, namely: health condition as a tracer condition for assessing the quality of care, compliance and non-compliance regarding the institutional protocols, reflection and training for accreditation.

Conclusion: The Tracer Methodology is used for evaluating and improving the quality of care.

Keywords: Health evaluation. Evaluation studies. Health services. Health management.

RESUMO

Objetivo: Analisar a produção científica sobre o Método *Tracer* na área da enfermagem.

Método: Revisão integrativa, realizada com 22 artigos localizados nas bases de dados: Literatura Latino-Americana e do Caribe em Ciências e Saúde (LILACS); *Medical Literature Analysis and Retrieval System Online* (Medline/PubMed); *Scientific Electronic Library Online* (SciELO); *Cumulative Index to Nursing & Allied Health Literature* (CINAHL) e *Web of Science*. As estratégias de busca incluíram descritores e palavras-chave: Método *Tracer*, Método traçador, Método rastreador, Método de avaliação, Usuário Guia e Enfermagem correlacionados e combinados com operadores booleanos.

Resultados: Organizaram-se os dados segundo os cenários de aplicação do método, a saber: agravos à saúde como condição traçadora para avaliar a qualidade dos cuidados, conformidades e não conformidades em relação aos protocolos institucionais, reflexão e capacitação para a acreditação.

Conclusão: O Método *Tracer* é utilizado para avaliação e melhoria da qualidade da assistência.

Palavras-chave: Avaliação em saúde. Estudos de avaliação. Serviços de saúde. Gestão em saúde.

RESUMEN

Objetivo: Analizar la literatura científica sobre el Método *Tracer* en el área de enfermería.

Método: Revisión integrativa de la literatura, conducida con 22 artículos en las bases de datos: Literatura Latinoamericana y Caribe en Ciencias de la Salud (LILACS); *Medical Literature Analysis and Retrieval System Online* (Medline/PubMed); *Scientific Electronic Library Online* (SciELO); *Cumulative Index to Nursing & Allied Health Literature* (CINAHL) y *Web of Science*. La búsqueda incluyeron las palabras clave: *trazador*, método de evaluación, guía del usuario y enfermería relacionados y combinados con operadores booleanos.

Resultados: Los datos se organizaron según los escenarios de aplicación del método: condición de salud estampados plotter para evaluar la calidad de atención, cumplimiento y no cumplimiento de protocolos, reflexión y formación para la acreditación.

Conclusión: El Método *Tracer* se utiliza para mejorar la calidad de la atención.

Palabras clave: Evaluación en salud. Estudios de evaluación. Servicios de salud. Gestión en salud.

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■ INTRODUCTION

The pace of acceleration of scientific and technological advances is faster than ever now due to the need to meet the increasing demand of users for improvements in health care services. Besides, the competitiveness of a globalized world has led health institutions to become more concerned about their obligation to provide high quality care⁽¹⁾.

The search for the continuous improvement of health-care and management of health institutions, aimed at promoting patient safety and the delivery of excellent health services⁽²⁾ reveals a concern with the quality of healthcare.

Some health services have incorporated the classical principles of quality from the managerial point of view, through systematic actions targeted to the assessment of the quality of these services. As this topic is of interest to the managers of healthcare services, such actions should be implemented with the use of systematic tools, and decisions should be made to ensure the continuous improvement of health care processes and products⁽²⁾.

The Tracer methodology or failure tracing method is one of the currently available quality assessment tools. It was designed to ensure that healthcare organizations continuously improve their operating systems and provide safe and high-quality care, since the use of a tracer – either a tracer disease or condition through which it is possible to know the evolution and treatment of the disease - is generally a healthcare system activity used for predicting the quality of care, and which has been incorporated by the Joint Commission International (JCI) in its practices, since 2004, and by Accreditation Canada, since 2008⁽³⁾.

The Tracer methodology shows how routine nursing work processes are developed, as well as their relationship with health service guidelines, making it possible to evaluate multiple aspects of care and the existing conformities and nonconformities⁽⁴⁾, although there is little evidence of its practical application. Therefore, it was necessary to investigate the use of this methodology for the improvement of the quality of nursing care regarding the contexts of its use and the results achieved.

Thus, the present study was based on the following research question: What evidence exists about the use of the Tracer methodology in nursing care, particularly regarding the contexts of its use and the results achieved?

To answer this question, the present study aimed to analyze the scientific production on the Tracer methodology in the nursing area.

■ MATERIALS AND METHODS

Integrative literature review (IR) that used systematic analysis and investigation synthesis⁽⁴⁾ on the use of Tracer methodology in nursing care based on publications in national and international journals up to March 2018.

The integrative review was carried out in five phases⁽⁵⁾: 1) problem identification and elaboration of the guiding question; 2) search and selection of publications; 3) data evaluation; 4) data analysis; 5) presentation of the results.

At first, the need to investigate the use of the Tracer methodology for inferring the quality of care in nursing was identified. Then, the guiding question to be answered by the Integrative Review (IR) was posed: What are the experiences and results of the use of the Tracer methodology in nursing care available in the scientific literature? During the second stage of the review, the search and selection of the publications was organized. Therefore, the following databases were searched: *Literatura Latino-Americana e do Caribe em Ciências e Saúde* (LILACS); Medical Literature Analysis and Retrieval System Online (Medline/ PubMed); Scientific Electronic Library Online (SciELO); Cumulative Index to Nursing & Allied Health Literature (CINAHL); and Web of Science. It should be noted that the search included all the databases with articles related to the topic of interest and that could be accessed at the educational institution where the researchers performed their activities. The searches were conducted in April 2018, with the assistance of a librarian attached to the research institution.

In that phase, the search strategies also included descriptors and/or keywords correlated and combined with Boolean operators. The Portuguese databases used *Método Tracer* OR *Método Traçador* OR *Método rastreador* OR *Método de Avaliação*, OR *Usuário guia* AND *Enfermagem*; and English databases used *Tracer methodology* OR *Tracing methodology* OR *Transition of Care Rotation* OR *User-guide* AND *Nursing*.

Inclusion criteria were full-text articles available online written in Portuguese, Spanish or English that addressed the experiences of the use of the Tracer methodology in the nursing field. The exclusion criteria were articles that addressed other methods of evaluation of healthcare quality.

The publications were selected after careful consideration. First, the texts were selected by title and abstract (Figure 1). After this pre-selection, the texts were fully read for the identification of the articles that answered the research question and met the inclusion/exclusion criteria. To extend the scope of the research and minimize potential biases, this step was performed by two researchers, individually. Duplicated articles were excluded and subsequently

those articles that did not answer the research question (after abstract reading or full-text reading) were excluded.

For a better understanding of this selection process, the flowchart Prisma Statement was elaborated⁽⁶⁾.

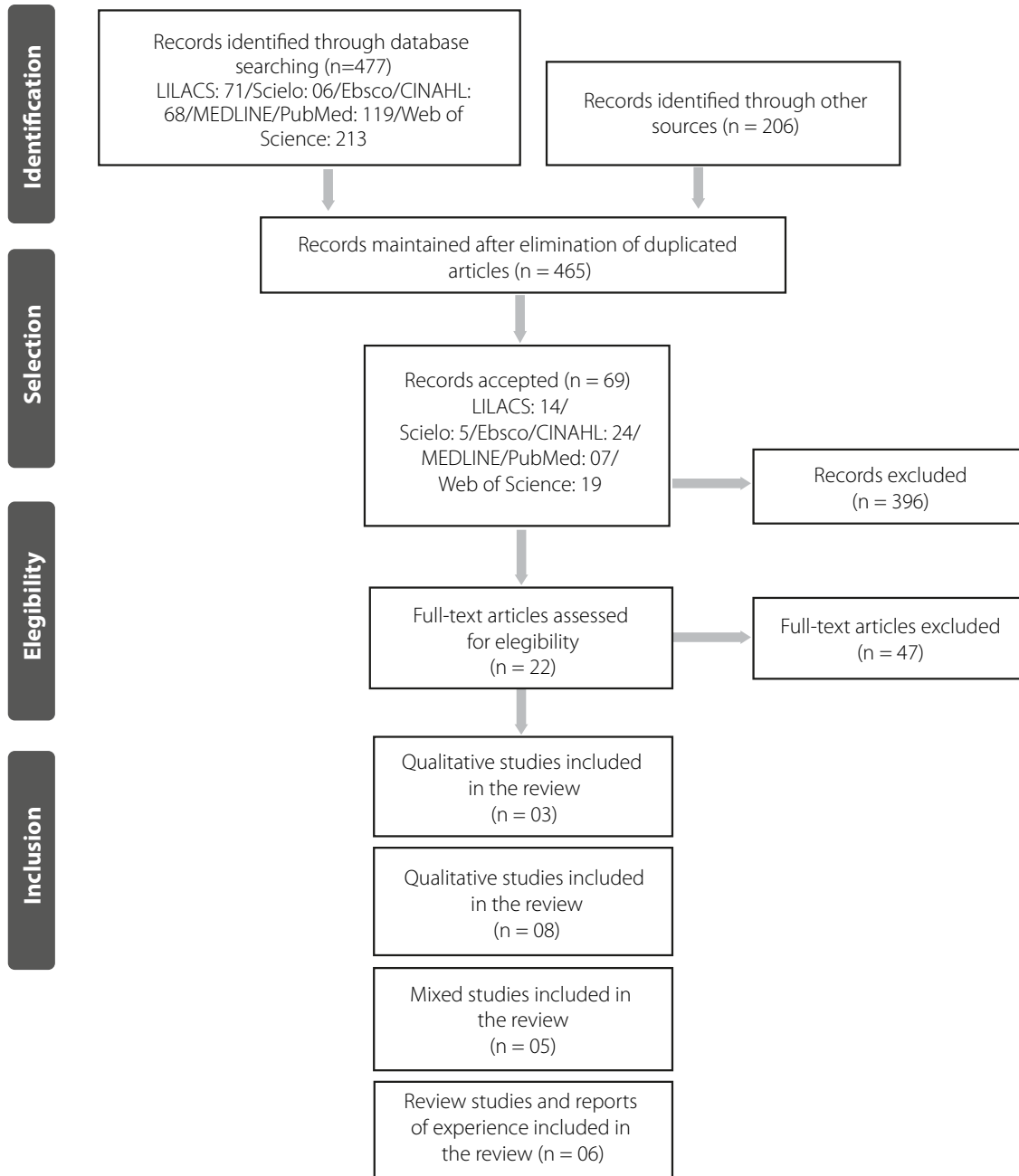


Figure 1 – Flowchart of the search and selection of articles

Source: Authors.

In phase 3 (data evaluation), the authors elaborated a form for the extraction of all relevant data from the articles included in this review. The form included the following data: author name, year of publication, place of publication, journal, database, experiences and results obtained in the articles. The data collected was organized in a table in order to facilitate the steps to be taken in the subsequent phases of this integrative review.

In phase 4, the data contained in the articles was analyzed. It was first classified according to the level of scientific evidence⁽⁵⁾. Subsequently, at the same stage, the experiences and results obtained by the Tracer methodology - now arranged in a chart - were analyzed according to their convergences and divergences, given the importance of the use of this methodology for ensuring high quality care, particularly regarding the safety of care, and in the context of nursing.

Then, phase 5 of the integrative review was performed. Data presentation and discussion of the findings were related to the safety and quality of nursing care, perceived

in their broader aspects such as the benefits of a health-care that involves the most effective use of the available resources with the minimum acceptable risk⁽²⁾. The entire path was organized, focusing on the clarity and objectivity of the findings that resulted in its internal validity - convergences between the research question, the pre-established objective, the method and its results - and external validity - possibility of applicability and generalizations to other contexts.

■ RESULTS

The 22 articles were published between 1976 and 2018, and most articles were published in 2015 (3 articles). Regarding the level of evidence: eight were classified as level 3 (quasi-experimental studies); eight, as level 4 (descriptive studies or qualitative approach) and six, as level 5 (case reports or experience reports). As for the databases, there was a homogeneous distribution of the findings (Chart 1).

Author	Year	Country	Periodical	Database
Bookbinder et al. ⁽⁷⁾	2018	USA	Journal of Pain and Symptom Management	CINAHL
Ross et al. ⁽⁸⁾	2017	USA	Military Medicine	CINAHL
Smith ⁽⁹⁾	2014	USA	Social Science & Medicine	CINAHL
Meade et al. ⁽¹⁰⁾	2015	USA	Journal of Community Hospital Internal Medicine Perspectives	Medline/PubMed
Oliveira, Guljor, Verztman ⁽¹¹⁾	2015	Brazil	Revista Latinoamericana de Psicopatologia Fundamental	LILACS
Chaves et al. ⁽¹²⁾	2015	Brazil	Saúde & Sociedade	LILACS
Durán-Arenas et al. ⁽¹³⁾	2012	Mexico	Salud Pública de México	LILACS
Pacheco-Domínguez et al. ⁽¹⁴⁾	2011	Mexico	Salud Pública de México	LILACS
Bottari et al. ⁽¹⁵⁾	2008	Brazil	Cadernos de Saúde Pública	LILACS
Silva et al. ⁽¹⁶⁾	2010	Brazil	Revista de Saúde Pública	SciELO
Brito-Silva et al. ⁽¹⁷⁾	2014	Brazil	Revista de Saúde Pública	SciELO
Bouchard et al. ⁽³⁾	2017	Canada	The International Journal of Health Planning and Management	Web of Science
Wisdom et al. ⁽¹⁸⁾	2012	USA	Psychiatric Services	Web of Science

Author	Year	Country	Periodical	Database
Lai et al. ⁽¹⁹⁾	2003	Canada	Parkinsonism and Related Disorders	Web of Science
Egges, Turnock, Springfield ⁽²⁰⁾	1980	USA	Annals of Emergency Medicine	Web of Science
Novich et al. ⁽²¹⁾	1976	USA	Medical Care	Web of Science
Murphy-Knoll et al. ⁽²²⁾	2006	USA	Journal of Nursing Care Quality	CINAHL
Wojtkowski ⁽²³⁾	2005	England	Journal of Emergency Nursing	CINAHL
Friedman ⁽²⁴⁾	2004	USA	Journal Home Health Care Nurse	CINAHL
[No authors listed] ⁽²⁵⁾	2003	USA	Hospital Peer Review	CINAHL
Magnarelli ⁽²⁶⁾	2005	USA	JCAHO News & Views	CINAHL
Chiò, Magnani, Schiffer ⁽²⁷⁾	1998	Italy	Movement Disorders	Web of Science

Chart 1 – Characteristics of articles that address the use of Tracer methodology in the nursing field.

Source: Research data, 2018.

Regarding the 22 articles analyzed in this study: seven use a quantitative approach^(7,9,12-14,16,19), seven use a mixed method (quanti-qualitative)^(8,15,17-18,20-21,27), five have a qualitative approach^(3,10-11,22,24) and three are reports of experiences^(23,25-26).

Regarding the thematic organization: two articles were updates^(22,24) and one was a report of experiences⁽²⁶⁾ on the Joint Commission on Accreditation of Healthcare Organizations (JACHO), two articles are reports of experience of educational activities focused on the work process during accreditation^(23,25) and two articles used Levodopa medication as a tracer condition to verify the prevalence of patients with Parkinson's disease^(19,27).

It should be noted that most of the articles analyzed⁽²²⁻²⁶⁾ that address accreditation by JACHO were published in the United States^(22,24-26) and one was published in England⁽²³⁾.

Only one article focused exclusively on nursing care⁽²²⁾. However, all others were conducted in direct or indirect healthcare settings that are accessible to nursing professionals in their teaching, care and management activities.

Regarding the environment in which they were conducted, five primary studies were carried out in the hospital setting, four in Primary Healthcare, four in the healthcare network, three in the outpatient setting, and one in the academic setting. Of the articles analyzed, one used Tracer

methodology as a transition strategy from hospital care to home care in a medical residency⁽¹⁰⁾. In other articles^(23-24,26), the Tracer methodology was used as a tool to prepare the team in the hospital accreditation process.

The data collection techniques reported in these articles were documentary analysis patient records and exams^(3,7-10,12-13,16-17,19-21,27), face-to-face and online interviews^(3,7-10,12-13,16-17,19-21,27), observation^(8-9,16) and a focus group⁽¹⁵⁾. Most studies relied on multiple sources of evidence. In addition to these techniques, there were three case studies with patients^(11,14,17) and two reports of experience^(23,25-26).

The individuals who participated in the studies were health professionals, users and manager^(6,8,14-17), only health professionals^(9,13,19) or only users^(7,10).

All articles published in Brazil used health problems to trace healthcare^(11-12,15-17), as well as two published in Mexico⁽¹³⁻¹⁴⁾, one in Canada⁽¹⁹⁾, one in Italy⁽²⁷⁾ and two in the United States⁽²⁰⁻²¹⁾. The articles included in this study used the following tracer conditions: users of psychiatric services⁽¹¹⁾, cardiovascular disease⁽¹²⁾, quality of pediatric services provided at the three healthcare levels⁽¹³⁾. In primary care, the tracer conditions were anemia and child growth; in secondary care, tracer conditions were low weight and congenital hypothyroidism, and in tertiary care, the tracer

conditions were respiratory distress syndrome, anemia⁽²⁰⁾, chronic kidney disease⁽¹⁴⁾, cervical cancer⁽¹⁷⁾, home care and its coordination in the local system⁽¹⁶⁾ through users' election of two cases of success and three cases of difficult solution, use of the healthcare network in an efficient and effective manner⁽²¹⁾ and use of drugs to evaluate the prevalence of Parkinson's disease^(19, 27).

Regarding the articles that addressed conformities and nonconformities of health care and healthcare

management, one study developed an audit tool to evaluate conformity of end-of-life care⁽⁷⁾; one study examined compliance with protocols for evaluating and reevaluating pain⁽⁸⁾, another study investigated changes in the implementation of public policies on maternal health⁽⁹⁾, and one study investigated compliance of outpatient mental health services with licensing eligibility criteria⁽¹⁸⁾.

The 22 articles included in this study were organized regarding the experiences and results achieved (Chart 2).

Article title	Experiences	Main results
Development and Field Test of an Audit Tool and Tracer Methodology for Clinician Assessment of Quality in End-of-Life Care ⁽⁷⁾	Development of an audit tool to assess and trace the quality of care in terminally ill patients.	The Tracer End of Life Care tool has been validated for use as a method to evaluate the quality of care at the end of life
An Outpatient Performance Improvement Project: A Baseline Assessment of Adherence to Pain Reassessment Standards ⁽⁸⁾	Healthcare professionals' adherence rates to protocols for evaluation and reevaluation of pain.	The follow-up of 12 cases traced made it possible to assess adherence to the protocols and identify areas for improvement.
Political contexts and maternal health policy: Insights from a comparison of south Indian states ⁽⁹⁾	Investigation of the public policy on maternal health at all healthcare levels.	The Tracer methodology helped identify existing differences, and facilitating aspects for their implementation.
TRACER: an "eye-opener" to the patient experience across the transition of care in an internal medicine resident program ⁽¹⁰⁾	Use of Tracer as an educational strategy on transition from hospital to home care by medical residents.	Residents learned about care transition through patient tracing after hospital discharge.
<i>Inclusão da diferença e reinternação psiquiátrica: estudo através de um " caso traçador"</i> ⁽¹¹⁾	Impact of users' bond with their territory on readmissions.	The user's path, the lack of care networks and their impact on readmissions were identified.
<i>Avaliação de resultados da atenção aos agravos cardiovasculares como traçador do princípio de integralidade</i> ⁽¹²⁾	Evaluation of the total outpatient and hospital care delivered for cardiovascular diseases.	Cardiovascular diseases revealed coordination between the levels of care, regionalization and integral care.
The use of the Tracer methodology to assess the quality of care for patients enrolled in Medical Insurance for a New Generation ⁽¹³⁾	Assessment of quality by means of chart audits and check of care-related indicators.	The tracer method allowed the assessment of the quality of care and stressed the points that need improvement.

Article title	Experiences	Main results
Diagnóstico de la enfermedad renal Crónica como trazador de la capacidade técnica em la atención médica em 20 estados de México ⁽¹⁴⁾	Verification of knowledge and skills of primary care physicians in the management of patients at risk of developing chronic kidney failure.	CKF was successfully used as a “tracer condition” to evaluate technical skills and the Mexican healthcare system.
<i>Câncer cérvico-uterino como condição marcadora: uma proposta de avaliação da atenção básica</i> ⁽¹⁵⁾	Reflection on the tracer condition “cervical cancer” and evaluation of basic care, with emphasis on preventive actions and early detection.	The results suggest that cervical cancer is an excellent tracer condition of primary care because it is related to accessibility, coverage, integrality and technical-scientific quality.
<i>Atenção domiciliar como mudança do modelo tecnoassistencial</i> ⁽¹⁶⁾	Home care experiences and their coordination in the local health system. The tracing of the “cases” made it possible to monitor the home care delivered by professionals of 4 outpatient services and one home care service.	The method allowed the process of self-analysis of the team, evaluation of the work process, and the relationship of home care with other services and its potential for the creation of a substitute care network.
<i>Integralidade no cuidado ao câncer do colo do útero: avaliação do acesso</i> ⁽¹⁷⁾	It used the tracer condition Cervical Cancer (CC), the delivery of services and the difficulties in the process of prevention, diagnosis and treatment of CC were used in the different levels of health care.	Primary care: insufficient coverage of oncology cytology, difficult access. In secondary care there was no difficult access. There were problems in recording positive case data.
Tracer methodology: an appropriate tool for assessing compliance with accreditation standards? ⁽³⁾	To verify the opinion of Accreditation Canada inspectors on the Tracer methodology used since 2008 in the assessment of the quality and safety of health services, and in the assessment of compliance with accreditation standards.	The Tracer methodology can effectively collect useful and reliable information to assess compliance with standards and processes. One limitation is the short time available for the investigators and often the lack of cooperation during the assessment.
Best practices: New York’s outpatient mental health clinic licensing reform: using Tracer methodology to improve service ⁽¹⁸⁾	Use of the Tracer methodology to trace conformities related to the criteria of the Office of Mental Health (OMH) for the licensing of New York mental health outpatient clinics.	The Tracer methodology allowed a more accurate evaluation of the follow-up of the clinical issues. Professionals and members of the OMH evaluated positively the methodology.
The prevalence of Parkinson’s disease in British, Columbia, Canadá, estimated by using drug Tracer methodology ⁽¹⁹⁾	Use of the tracer drug Levodopa and / or other antiparkinson drugs to estimate the prevalence of Parkinson’s disease (PD), and its location in British Columbia and Canada. using the Prescription Database of the College of Pharmacists.	Using a large database, the authors estimated the prevalence of Parkinson’s disease using the “Tracer methodology” of drugs. It was concluded that it is possible to estimate the prevalence of PD in a large population using the number of patients for whom levodopa and other antiparkinsonian drugs were prescribed.

Article title	Experiences	Main results
Evaluation of an EMS (Emergency Medical Service) Regional Referral System Using a Tracer Methodology ⁽²⁰⁾ .	Evaluation of the EMS regional reference system by means of "five tracer conditions" to verify if the patients were being referred to the appropriate regional center.	Only half of the patients with the conditions traced by the study were referred to the appropriate centers. The need for prospective analysis of inconsistent charts was identified as a weakness of the methodology.
Assessment of Ambulatory Care: Application of the Tracer Methodology ⁽²¹⁾	Outpatient care received by 100 children with anemia (hemoglobin 11.0gm/ 100mL or less) in a pediatric clinic was traced and evaluated.	In 52 patients, the low level of hemoglobin was not recognized. Evaluation, diagnosis, treatment and follow-up care were available to only 25 patients, revealing the deficiencies of the use of tracers in the healthcare services.
Nurses and the Joint Commission Tracer Methodology ⁽²²⁾	Nurses' update on the Tracer methodology, a tool used to evaluate compliance with patient safety regulations and standards.	Nurses reported a high level of satisfaction with the new accreditation process, using the Tracer methodology that addresses crucial issues for the prevention of adverse events.
Our JCAHO Journey: one Emergency Department's approach to the New Tracer Methodology ⁽²³⁾	The educational activities used in an emergency hospital department in the preparation of the team for the evaluation and accreditation process of JACHO were shown.	Techniques used: Tracer video, weekly bulletin of the team, Jeopardy games of risk factors (4 weeks), false inquiries, list of abbreviations and questionnaires.
Accreditation Strategies. Tracer methodology and the New Joint Commission Home Care and Hospice Survey Process ⁽²⁴⁾ .	Use of the Tracer methodology and description of accreditation strategies as a new tracer method in the research of home care and palliative care.	The focus of the research on priority areas of home care pre-established by JCAHO and follow-up care received from the beginning of treatment till now.
Educating staff on Tracer methodology is a must: survey results depend on it ⁽²⁵⁾	To prepare and train the hospital staff for JACHO's assessment. At first, the problem areas where employees need improvement should be identified because of their lack of knowledge and inconsistent answers. The types of patients likely to be screened for research should be evaluated.	Methodology aspects: There is less control during the study, the evaluators investigate the facilities, departments and ancillary services while tracing the path traveled by the users. There are great educational benefits, as all staff members are properly trained to answer the questions of the evaluators, and patient care is discussed with the multidisciplinary team.
A case study... what one facility learned from the Tracer Methodology ⁽²⁶⁾	The experience of Miami Children's Hospital evaluation by JCAHO using the Tracer methodology is reported.	Several nonconformities were detected. The use of the Tracer reinforced the importance of using data to make decisions and establish committees as a resource for problem solving.

Article title	Experiences	Main results
Prevalence of Parkinson's disease in Northwestern Italy: Comparison of Tracer Methodology and Clinical Ascertainment of Cases ⁽²⁷⁾	Comparison of the prevalence of Parkinson's disease (PD) by means of the drug tracer (levodopa/other antiparkinsonian drugs) and through clinical case-finding in an area of northwestern Italy.	The prevalence rate of PD was overestimated in elderly and female patients and was underestimated in younger and less severely affected patients using the drug tracer methodology and by comparing the clinical examinations.

Chart 2 – Identification of the article, experiences, and results of the use of the Tracer methodology in nursing

Source: Research data, 2018.

In general, there is a growing tendency to use the Tracer methodology in nursing and care interface areas, mainly as a tool for auditing, quality of care, learning and hospital accreditation, which has impact on patient safety and applicability to nursing in different contexts and scenarios.

■ DISCUSSION

The Tracer methodology is indicated for the evaluation of health and nursing practices and is guided by standards/indicators for comparing the costs/benefits of technologies, certification and accreditation of healthcare services^(23,26,28).

Accreditation is a process of systematic, periodic and reserved evaluation based on the appreciation of the organizational reality, according to previously defined standards. Such evaluation may result in quality certification^(22-24,29). Because it is related to accreditation, since it is suggested for this purpose⁽³⁰⁾ essential areas for the guarantee of high quality and safe care are assessed through the Tracer methodology, which are defined according to their priority or service demands.

In Brazil, accreditation is usually mediated by the National Accreditation Organization (ONA), a nongovernmental organization founded in 1999 whose evaluation process is based on levels of compliance (certification) that include safe care and excellence in management, demonstrated in the strategic planning in line with the results. Given the voluntary nature of adherence to the process in question, there are coexisting national accreditation initiatives of ONA and JACHO in Brazil⁽³¹⁾.

International Accreditation, from Canada, model Accreditation Canada International (ACI) also uses the Tracer methodology for performance and outcome indicators, as well as international expert guidance for continuous improvement⁽³⁾. The benefits of accreditation are the

promotion of a culture of quality, the strengthening of the multidisciplinary team, positive standards of conformity of indicators related to adverse events and centralized service to the users⁽³⁾.

However, the articles investigated showed that this method is not restricted to accreditation processes. It can be used to assess quality in management and care processes in different settings, because in nursing, complex care processes are developed and governed by several aspects that need to be controlled in terms of their effectiveness, efficacy, production, quality, as well as prevention, risk reduction and damage to patients/clients users⁽¹⁾.

Individuals with health problems that required high acuity care from the nursing staff were identified in the articles that used tracer conditions^(11-14,17,19-21,27) examined in this literature review. Nursing team records were mapped and each individual contact with the healthcare service was traced to evaluate integrality, access to health services, health service coverage, technical-scientific quality, effectiveness and active search - all these criteria are related to the quality of nursing care.

Therefore, the use of tracer conditions sheds light on how complex work processes are routinely performed and their relationship with the guidelines of health services provided by nursing professionals. The method allows a better understanding of values, concepts and technologies that would not necessarily be accessed in another way, e.g. in an interview⁽¹⁶⁾. This adds perceptions and considerations to nursing work and its collaborative and interdisciplinary practice.

The use of tracers is based on the assumption that through the assessment of the care provided to patients suffering from certain disorders, of which is known the evolution of the health-disease process and that are treated with the use of proven intervention technologies, it is possible to infer the quality of healthcare in general,

including access to more complex levels of the system⁽¹⁷⁾, as it was identified in the studies selected in the present research. Therefore, it is a powerful tool to ensure safe care, not only for identifying inferred risks/damages, but also for ensuring the timely delivery of healthcare, which is essential in nursing.

When a tracer is defined, the various actions performed by the healthcare team and the configurations of the interactions between health workers and users can be seen. Also, the use of various technologies and organizational arrangements can be assessed. In short, the unquestionable role of the Tracer methodology in the safety and quality of care^(7-9,18), is reaffirmed, highlighting the role of nursing professionals in the interdisciplinary healthcare team to ensure the delivery of comprehensive care.

Therefore, it is suggested that, as it was done in the studies listed in this article, the basic conditions for the selection of tracers should include functional impact, objective diagnosis, high prevalence rates, history of sensitivity to medical care, well-defined medical conduct of prevention, diagnosis, treatment or rehabilitation, known effects of non-medical factors on the tracer condition⁽³²⁾ – as it is the case of nursing.

Tracers can be prospectively presented/drawn through various data collection techniques, such as interviews, observation and focus groups, or retrospectively identified through documentary analysis in medical records as markers for analyzing caregiving, changes, or educational processes. Thus, the studies usually use different methods to collect data.

The conformities or nonconformities revealed by the Tracer methodology are consistent with the compliance or noncompliance of actions and procedures established by standards and guidelines aimed to ensure high quality and safe care, prevention of failures and lower risk of damages^(22,26). They provide an opportunity to recognize and implement measures to improve the quality and safety of the care delivered to the patients⁽³⁰⁾, which is necessary, given the complexity of health work processes that favor the occurrence of errors⁽²⁸⁾ in which nursing professionals are frequently involved.

In addition to the accreditation and evaluation of care quality/safety, the Tracer methodology has an educational role^(10,23,25), identified in the election of conformities and nonconformities. Thus, its use is contextualized, and the method has an educational role, as it identifies nonconformities that are discussed by health professionals on the spot, and also traces the path traveled by users and reproduces it in the health service. This process favors the

reflection of those involved in the practice⁽²⁸⁾, establishing an action-reflection-action process⁽³³⁾. Therefore, it is a problematization methodology, since it brings evaluators, health professionals and patients/clients/users together, and a powerful tool for the promotion of the permanent education of the nursing team.

Thus, the educational character of this methodology favors the evaluation of the actions taken and provides an opportunity for the health professionals of the institution to discuss concepts, answer questions and clarify doubts with the evaluator. Thus, through the reflection on rooted concepts and practices of the institutional culture, quick improvements and changes may occur.

This problematization of reality can transform knowledge and actions in order to promote permanent education in health⁽³⁴⁾. Therefore, the Tracer methodology can be considered a suitable method for ensuring significant learning in the workplace, which has become a matter of great concern in the permanent education of nursing teams.

■ CONCLUSION

The Tracer methodology is rather used as an evaluation method for accreditation of health services in the international context, allowing the identification of conformities and nonconformities, according to pre-established standards, to make inferences in evaluations of healthcare quality and patient safety.

In the Brazilian context, the Tracer methodology differs from the international experiences, because it is aimed to evaluate health services, through the use of specific diseases or the healthcare network arrangement as tracer conditions, in order to gain insight on the process of care provided - where nursing holds a prominent position - and improve the quality of care.

The advantage of the use of the Tracer methodology in nursing is its educational character as it problematizes, examines and reflects on reality. Therefore, it can be used as a tool in the implementation of permanent health education as a routine practice, through work and in the workplace. This educational potential is not restricted to the nursing team, as it also benefits the entire healthcare team, given the key role played by nurses in providing advice and leadership in processes for quality implementation and monitoring, due to their effective and continuous presence in healthcare services, managerial, leadership and interaction skills in the workplace routine.

Some limitations of this study were the low availability of databases in the university and the use of the descriptor nursing that may have restricted access to the available publications.

It is suggested that future studies conduct a broader search for publications related to the evaluation of health services, in order to expand the range of instruments used to promote high-quality care and patient safety.

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