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Influence of Nursing in Health Economics: an Integrative Review of Literature

*Influencia de Enfermería en la Economía de la salud:
una revisión integrativa de la literatura*

MARÍA ANGÉLICA SALDÍAS FERNÁNDEZ¹, CAROLINA LUENGO MARTÍNEZ²

¹ Main author. Master in Public Policies, Universidad Diego Portales, Chile. Associated Professor at Universidad de Chile, Chile. Masaldias@uchile.cl. Orcid: <https://orcid.org/0000-0002-2278-9124>.

² Doctor in Nursing, Universidad de Concepción Chile; Master in Public Health, Universidad del Bio Bio, Chile. Associated Professor at Universidad del Bio-Bio, Chile. cluengo@ubiobio.cl. Orcid: <https://orcid.org/0000-0002-6541-3645>.

Correspondence: Carolina Luengo Martínez. cluengo@ubiobio.cl

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ABSTRACT

In times of great socio-sanitary conjunctures, such as these, to identify the influence of nursing in the complex dynamics of the health economy and health management becomes vital.

Objective: to determine the implications of nursing on health economics as seen in the literature.

Methodology: to integrative a review of the literature, in OVID, Pubmed, Clinikal Key, Scielo databases, published in the 2000 - 2018 period in English, Portuguese, and Spanish languages, following the recommendations of the SALSA review method and adjusted to modified PRISMA requirements. Of a total of 26 retrieved articles, 18 were eligible for review, after applying the inclusion and exclusion criteria. The data were summarized using a narrative-qualitative-descriptive synthesis.

Results: 44% of the publications were made between 2005 and 2009; 78% were made in the United States; 56% were obtained from PUBMED; and 44% are of quantitative design. The categorical analysis shows a clear tendency to reveal the economic cost related to the impact of the nursing professional's work in various areas, rather than considerations of quality of care or effectiveness of the work.

Conclusion: links were observed between nursing actions and health economics in three main aspects: quality of care, costs, and effectiveness.

Key words: Nurses; Health Economics; Economics Nursing.

RESUMEN.

En momentos de grandes coyunturas socio sanitarias actuales, se vuelve vital identificar la influencia de enfermería en las dinámicas complejas de la economía de la salud y la gestión sanitaria.

Objetivo: determinar las implicancias evidenciadas en la literatura que enfermería posee en la economía de la salud.

Metodología: revisión integrativa de la literatura, en bases de datos OVID, Pubmed, Clinikal Key, Scielo publicados entre 2000 - 2018 en idiomas inglés, portugués y español, siguiendo las recomendaciones del método SALSA de revisión y ajustada a requerimientos PRISMA modificado. De un total de 26 artículos recuperados, 18 fueron elegibles para revisión, luego de aplicar los criterios inclusión y exclusión. Los datos fueron resumidos mediante síntesis narrativa-cualitativa- descriptiva.

Resultados: Un 44% de las publicaciones se realizaron entre 2005 al 2009; el 78% fueron hechas en Estados Unidos; un 56% se obtuvieron de PUBMED y el 44% son de diseño cuantitativo. El análisis categorial muestra una clara tendencia por relevar el costo económico relacionado al impacto del trabajo del profesional de enfermería en diversas áreas del quehacer, más que consideraciones de calidad del cuidado o efectividad del trabajo.

Conclusión: se observaron vinculaciones entre el actuar de enfermería y la economía de la salud, en tres aristas principales: calidad de atención, costos y efectividad.

Palabras clave: Enfermeras y Enfermeros, Economía de la salud, Economía de la Enfermería.

INTRODUCTION.

Today's health care organizations are inserted in a complex environment that forces them to offer a wide range of products and services provided by multiple health professionals whose focus should be on quality and permanent result evaluation processes (1- 3).

Being this how it is perceived, patient safety and quality improvement efforts focus on a complex environment with finite resources and results in increased public scrutiny over their use. Therefore, health care requires a better understanding of the implications in health economics from professionals; understanding it as a field of research whose object of study is the partial or complete analysis of cost-effectiveness elements involved in the use of human and material resources, and the organization of health services as structural elements of efficiency of health systems in their function of treating illness, working on health promotion, and prevention (4-7).

Health economics, in the words of Collazo et al., “integrates economic, social, clinical, and epidemiological theories in order to study the mechanisms and factors that determine, affect, and condition the production, distribution, consumption, and financing of health services, and it is applied for the development of policy instruments; health and its economic value; demand and supply of medical care; the equilibrium of the market; planning, regulation, and monitoring of sanitary actions; the comprehensive evaluation of the health system; economic evaluation of specific health technologies; and microeconomic evaluation” (8).

It is then, when, in the dynamics generated in health economy, the health team in general, and the nursing professional in particular, determine their relevance and become an indispensable

political actor for health management, in terms of decision-making as to searching for efficient and rational strategies.

From this perspective, and in times of great socio-sanitary conjunctures, such as these, to identify the influence that the nursing discipline has on the dynamics generated in the health economy and the provision of health services is vital, showing the human capital that it has to prioritize the optimization of resources, the costs and benefits of the care management in the health organization; by virtue of improvements in the quality of people's health and continuity of care (9-15). On it, the role that the nursing professional has played in the current socio-sanitary crisis is highlighted, becoming a front-line player in health.

The purpose of this study is to know the influence of nursing on health economy, considered as a field of study that allows for the analysis of a wide range of decision-making strategies that guide efficient and rational possibilities for health management. This research project will use systematized literature review of recent years, in order to highlight or demonstrate the various observable and non-observable aspects that the Nursing profession entails, which could contribute to health management. In order to determine the implications of nursing on health economics, as seen in the literature.

MATERIALS AND METHODS.

Type of study: integrative review of the qualitative type of literature (15, 16 ,17), following a descriptive structure in the report, making use of the recommendations of the SALSA review method (Search, Assessment, Synthesis and Analysis) (15), and adjusting the PRISMA tool (18 ,19) to the purpose of the investigative process. The integrative review was guided by the questions: What is the role of nursing in the health economy? And how can we strengthen nursing work in the face of socio-sanitary scenarios of uncertainty?

Selection criteria

Inclusion criteria: quantitative and qualitative research, opinion articles, essays and reflections, structured searches of the literature, study population nurses; developed in any country; whose results report the relationship between political economy and nursing; in English, Spanish, and Portuguese languages.

Exclusion criteria: Research carried out outside the established period of time, study population that includes other health professionals.

Data collection: A search of the information was carried out between June 26, 2019 and November 26, 2019. The following key terms were used as a search strategy for this review: “nurses and health economics” and “health economics. nursing” in the OVID, Pubmed, Clinikal key, and Scielo databases. The following filters were used: years of publication (2000-2018), research area (nursing), type of document (article), language (English, Spanish or Portuguese), text availability (abstract and full text), species (humans), and the Boolean operator AND, to relate Health economics AND nursing; Nursing AND health economics AND nursing and their related key terms and the concatenator, in quotation marks to search for the exact term: “health economics”

Study population: Data were extracted from 18 selected studies after application of eligibility criteria, elimination of duplicates, and assessment of methodological quality. It is important to note that since different types of studies were included, it was considered as the only criterion that they fulfilled all the elements required according to the standards for each type of study. The details of the articles retrieved were 5 from OVID, 10 from Pubmed, none from Clinikal key, and 3 from Scielo. The different stages of the review are detailed in Figure 1.

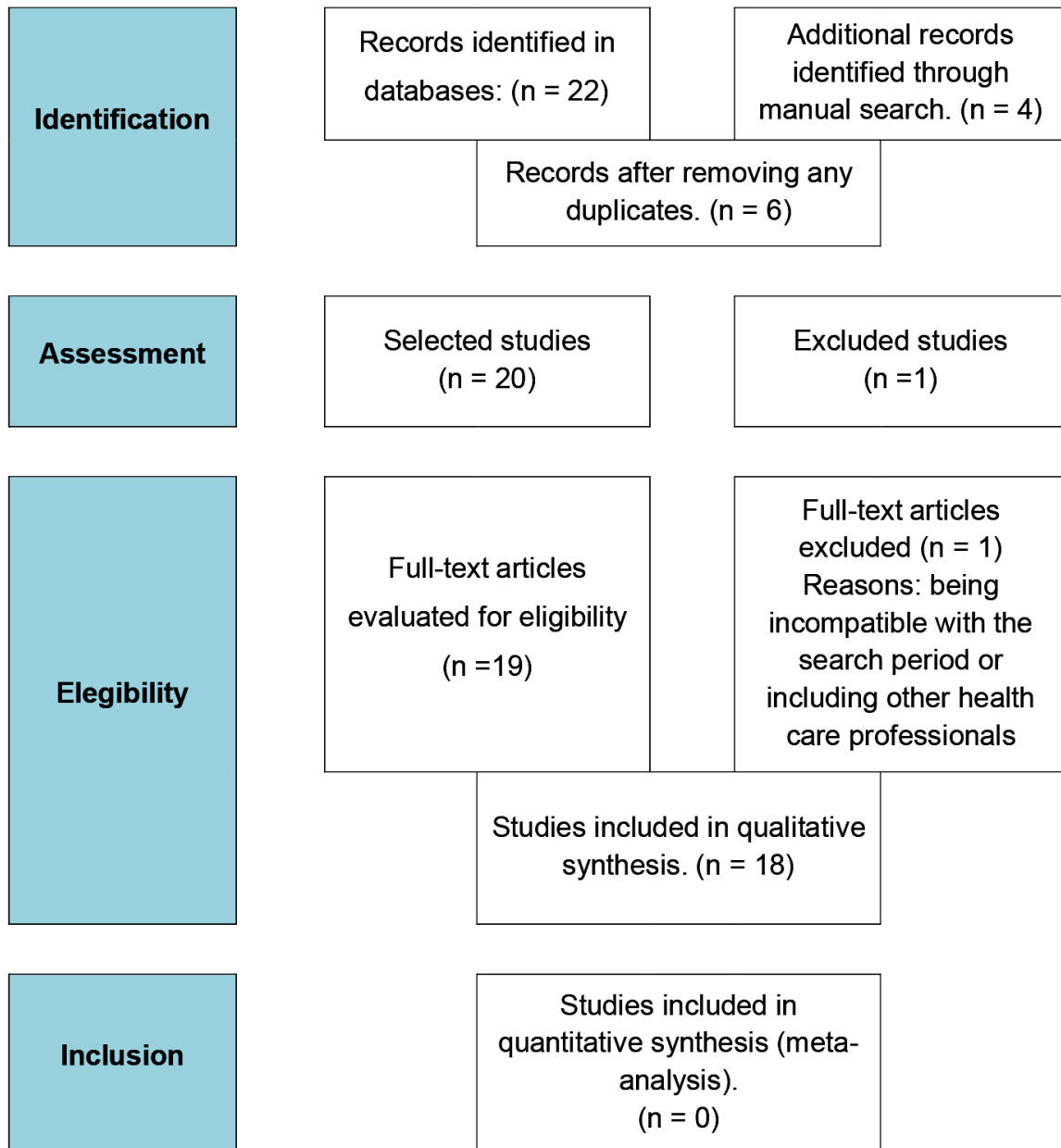
Data analysis and statistical data treatment

The authors independently reviewed the abstracts of each selected study, applying the eligibility criteria and assessment of methodological quality. It is important to note that it was the only quality considered criterion was they met all the items required according to the standards for each type of study, considering that they were extracted from indexed journals having an editorial committee. Furthermore, there were no episodes of eligibility differences.

The data from the different studies was summarized using a narrative-qualitative synthesis. With the emerged data, a summary table was generated in order to characterize the studies, considering the following elements: article title / author (s); country / year, study design, and main findings which detail the implication of nursing in the health economy, a table that summarizes the qualitative-descriptive synthesis of the articles and finally a third table, with the description of articles by categories emerged from the review: a) health economics: quality of care and nursing; b) health economics: costs and nursing and c) health economics: effectiveness and nursing.

Ethical aspects. Given the study methodology, this article does not require approval from the ethics committee.

Figure 1. PRISMA Flowchart



From: Moher D, et al (20) ; Hutton B, et al (19)

RESULTS

Out of a total of 26 articles, 18 studies were included in the qualitative analysis work. Information was systematized in Table 1, characterization of the studies; Table 2, qualitative - descriptive synthesis of the articles and Table 1, description of articles by categories. The descriptive analysis highlights 44% of the publications were made in the period between 2005 and 2009; 78% were carried out in the United States; 56% were obtained from PUBMED, and 44% are of quantitative research design. (See Table 2.). The categorical analysis of the results shows a clear trend in the literature to reveal the economic cost related to the impact of the nursing professionals' work in various areas, rather than considerations of quality of care or effectiveness of work. (See Table 3).

Table 1. Studies Characterization

Article	Country/year	Study Design	Main Findings
1. Hospital Restructuring and Its Impact on Outcomes Nursing Staff Regulations are Premature (21) <u>Authors:</u> Sovie MD, Jawad AF	USA/2001	Quantitative	<ul style="list-style-type: none"> • The value of patient care, defined as the relationship between quality and costs, does not appear in a single size of nursing staff. No single personnel pattern resulted in the best value. • It was not possible to determine the number of nursing staff or the number of hours needed to provide higher quality care.
2. Physician – nurse practitioner teams in chronic disease management: the impact on costs, clinical effectiveness, and patients' perception of care (22) <u>Authors:</u> Litaker D, Lorraine CM, Planavsky L, Kippes C, Mehta N, Frolkis J	USA/2003	Quantitative	<ul style="list-style-type: none"> • The participation of Nurses in the collaborative management of chronic diseases demonstrates effectiveness and improvement of clinical and patient-derived benefits at modest incremental economic expense.

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Article	Country/year	Study Design	Main Findings
<p>3.The Costs of Nurse Turnover, Part 1. An Economic Perspective (23)</p> <p><u>Authors:</u> Jones CB.</p>	<p>USA/2004.</p>	<p>Structured literature search.</p>	<ul style="list-style-type: none"> • Nurse rotation is costly (economic) for healthcare organizations. Administrators and executives of healthcare organizations need a reliable estimate of these costs and their causes if they want to develop effective measures to reduce the phenomenon. However, determining how to best capture and quantify these costs can be challenging. <hr/> • The potential financial consequences of nurse rotation are mainly related to productivity and performance / performance losses in the organization, with a direct impact on quality and user satisfaction, since the ratio between nurses, patients, and satisfaction are positively correlated. <hr/> • Human capital theory (HCT) recognizes that individuals and organizations that invest in human capital obtain higher productivity and financial returns. <hr/> • Human capital development reflects the knowledge and skills built into a person through education, training, experience, and previous jobs, all of which, theoretically, make the person more productive and able to earn higher wages than others without the same complement of human capital. <hr/> • Individual investments also benefit the organizations where nurses work, as well as society, which benefits from the unique contributions of nurses in the form of nursing knowledge, skills, and services. It makes the organization more productive and increases financial performance. <hr/> • Executives of healthcare organizations can use the information resulting from this study in making organizational decisions and developing policies and practices aimed at the retention of nurses.

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Article	Country/year	Study Design	Main Findings
<p>4. The Costs of Nurse Turnover, Part 2 (24)</p> <p><u>Autores:</u> Jones, CB</p>	USA/2005	Structured literature search.	<ul style="list-style-type: none"> • There is minimal knowledge about the costs and benefits of nurse retention, the effects of rotation and retention on patient satisfaction and safety, patient loyalty and attrition, staff satisfaction and safety, and organizational productivity and performance; and the human capital aspects of nurse rotation. • Investments in nursing retention can give Health-care Organizations a competitive advantage by having a stable, productive, and satisfied nursing workforce and, in turn, improve consumer perceptions of workforce quality and increase the demand for services from Health Organizations. • A broader understanding of the factors affecting expenses, income and productivity around nursing is needed.
<p>5. Nurse Staffing in Hospitals: Is There A Business Case For Quality? (25)</p> <p><u>Authors.</u> Needleman J, Buerhaus PI, Stewart M, Zelevinsky K, Mattke S.</p>	USA/2006	Quantitative	<ul style="list-style-type: none"> • Increasing nursing hours reduces days, adverse outcomes, and patient deaths, but with a net increase in hospital costs of 1.5% or less. • Whether to increase or not staffing depends on the value that patients and taxpayers place on preventable deaths and complications. • Patient safety and quality improvement efforts have increased dramatically in recent years. However, doubts remain about the value of improving quality from both a social and a hospital perspective.
<p>6. The Effect of a Multidisciplinary Hospitalist/Physician and Advanced Practice Nurse Collaboration on Hospital Costs (26)</p> <p><u>Authors:</u> Cowan MJ, Shapiro M, Hays RD, Afifi A, Vazirani S, Ward CR, Ettner S L</p>	USA/2006	Quantitative	<ul style="list-style-type: none"> • The collaborating physician / nurse, the multidisciplinary management of the care of hospitalized medical patients reduced nosocomial pathologies and improved hospital earnings without altering admissions or mortality. • The collaboration of nurse/doctors to improve continuity, the planning of the multidisciplinary team, accelerated hospital discharge, and the evaluation after discharge can reduce staying days and hospital expenses without affecting admissions or mortality.

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Article	Country/year	Study Design	Main Findings
<p>7. Hospital nursing, billing and reimbursement (27)</p> <p><u>Authors:</u> Welton JM, Fischer MH, De-Grace S, Zone-Smith L</p>	USA/2006	Quantitative.	<ul style="list-style-type: none"> Nursing intensity and direct nursing costs were highly variable within and between each of the nursing units in the study (mean \$ 429, SD \$ 160); direct nursing care costs were significantly higher for private room rates compared to daily charges for intermediate rooms billed at a higher rate (\$ 441 vs. \$ 426, F 37.77, p < 0.001).
<p>8. Estimating nursing costs-A methodological review (28)</p> <p><u>Authors:</u> Chiang B.</p>	USA/2008	Case Study.	<ul style="list-style-type: none"> Nursing costs are the most significant in health care in relation to the various activities of their professional work, however, they are not detailed or billed, so it is essential that the health care provider has a clear idea of nursing costs for cost management purposes. As the cost system becomes more specific and accurate, hospitals can make better pricing decisions and can be more efficient in managing costs.
<p>9. Effects of hospital care environment on patient mortality and nurse outcomes (29).</p> <p><u>Authors:</u> Aiken L, Clarke S, Sloane D, Lake E, Cheney T</p>	USA/2008	Quantitative	<ul style="list-style-type: none"> Nurses reported more positive work experiences and fewer concerns with quality of care, and patients had a significantly lower risk of death and failure to rescue in hospitals with better care settings.
<p>10. Revisiting Nurse Turnover Costs. Adjusting for Inflation (30)</p> <p><u>Authors:</u> Jones CB</p>	USA/2008	Case Study	<ul style="list-style-type: none"> Creating an environment that mitigates nurse rotation and increases retention saves the organization money. These savings come not only in the form of billing costs, but also in ways that cannot be easily quantified such as: Staff satisfaction, patient improvement and safety, increased patient satisfaction, and in turn, customer return visits earlier when future health services are needed. Savings are also realized in gaining a competitive advantage in the local market and are likely to provide the organization and staff with greater flexibility. At the macro level, knowledge of nurse rotation and associated costs allow a broader understanding of how nurses and nursing staff contribute to quality.

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Article	Country/year	Study Design	Main Findings
<p>11. The Economic Value of Professional Nursing (31)</p> <p><u>Authors:</u> Dall T, Chen YJ, Seifert R, Maddox PJ, Hogan P.</p>	<p>USA/2009.</p>	<p>Literature Review.</p>	<ul style="list-style-type: none"> • Increasing the number of nursing staff, although costly, results in a better quality of patient care. <hr/> • The improvement of patient care is related to the prevention of complications through faster identification and intervention and leads to a faster recovery of the patient, generates health savings <hr/> • The intangible benefits of reducing pain and suffering for patients and their families; the risk of re-hospitalization of the patient; benefits to the hospital, such as better reputation, reduced malpractice claims and payments, and reduced compliance-related costs; the benefits of increased staffing related to a better work environment (eg reduced rotation and risk of injury); and the value of administrative activities performed by patient care nurses (for example, functions related to billing and ordering) <hr/> • Because health centers only perceive part of the economic value of professional nursing, under current reimbursement systems, the incentive (and the financial reality) is for centers to have staff at lower levels where the benefit to society it is equal to the cost of hiring an additional nurse. <hr/> • Second, the economic value of nursing is greater for payers than for individual health centers. By reducing patient recovery periods and preventing nosocomial complications, nurses reduce the demand for selected medical services. <hr/> • Closer connection between reimbursement and patient outcomes could help facilities to capture more benefits from improved staffing, thereby strengthening the financial incentive and providing the financial means to improve quality of care. <hr/> • Our findings reinforce the findings of others, strengthening the economic case for hospital investment in nursing, particularly in understaffed hospitals.

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Article	Country/year	Study Design	Main Findings
<p>12. Effectiveness of Psychiatric Mental Health Nurses: Can We Save the Core of the Profession in an Economically Constrained World? (32)</p> <p><u>Autores:</u> Santos JC, Amaral AF.</p>	Portugal/2011.	Structured literature search.	<ul style="list-style-type: none"> • It is relevant to identify the identity, efficacy, and effectiveness of the nursing professional work, as well as the contribution it makes to patients in their independent, dependent, and interdependent roles. • Nursing is increasingly able to show that it can make a difference in people and in their life processes, transitions, and, also, in diseases, however, its invisibility is a problem and demonstrate the effectiveness in practice (the possible benefits that people or society can get from their contribution), seems to be particularly important in the current economic climate and in the era of evidence-based practice and is understood as a process of accountability or health outcomes.
<p>13. Costos de las actividades de enfermería realizadas con mayor frecuencia a los pacientes de alta dependencia hospitalizados/ Costs of nursing activities performed more frequently in hospitalized high-dependency patients (33)</p> <p><u>Authors:</u> Lima A, Castilho V, Fugulin FMT, Silva B, Ramin NS, Melo TO.</p>	Bra/2012.	Quantitative	<ul style="list-style-type: none"> • Cost studies of nursing activities performed more frequently by nurses in hospitalized patients, such as oral feeding (OF); verification of blood pressure (BP) / heart rate (HR), verification of body temperature (TC); performing intimate hygiene and feeding administration through the tube; It allows to support cost management and limit unnecessary consumption of resources. In the same way, it allows for understanding the relationship between costs and results of care.
<p>14. A Modest Proposal: Nurse Practitioners to Improve Clinical Quality and Financial Viability in Critical Access Hospitals (34)</p> <p><u>Autores:</u> Marsh L, Diers D, Jenkins A.</p>	USA/ 2012	Study Case	<ul style="list-style-type: none"> • Nurses can be an important resource in helping rural hospitals, especially critical access hospitals (CAH), achieving their mission of community service while protecting their delicate financial sustainability. • Changes in public policy, tax laws, and independent practice and reimbursement models are needed to create powerful incentives to move health care toward a sustainable level of spending.

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Article	Country/year	Study Design	Main Findings
<p>14. A literature review of nursing turnover costs (35)</p> <p><u>Autores.</u> Li Y, Jones C.B</p>	USA/2013	Literature Review	<ul style="list-style-type: none"> • Rotation of nurses is costly for healthcare organizations, as these costs must be paid using organizational resources and accounted for in the organization's budgets • In some cases, rotation of nurses may decrease general expenses on nursing salaries because the salaries of newly hired nurses may be less than those of departing nurses. • Knowledge of nurse turnover costs can help healthcare organization administrators and workforce planners determine how to best allocate human and monetary resources to retain nurses and improve quality of care.
<p>15. Exploring the Cost-Effectiveness of Unit-Based Health Promotion Activities for Nurses (36)</p> <p><u>Autores:</u> Palumbo VM, Sikorski EA, Liberty BC</p>	USA/2013	Case Study.	<ul style="list-style-type: none"> • A Health Promotion program in health personnel in general and in nursing in particular, can have an impact on absenteeism and job satisfaction of health workers. It is generated by a return on investment, by contributing to the reduction of unscheduled absenteeism.
<p>16. Dificultades y oportunidades para la enfermería: una revisión narrativa sobre evaluación económica en salud / Difficulties and opportunities for nursing: a narrative review on economic evaluation in health (37)</p> <p><u>Autores:</u> Mata V, Schutz V, Peregrino Antonio.</p>	BRASIL/2013	Literature Review.	<ul style="list-style-type: none"> • 88 publications were found, and 65 selected, of which 44.62% belonged to the LILACS database, 44.62% to MEDLINE, 4.60% to IBECs, and 6.16% to CAPES. 75.38% were on partial cost evaluation and 24.62% on economic evaluation. Medicine was the sub-area that published the most (41.54%), considering the two types of methodologies; followed by nursing, which only published on partial cost evaluation (15.38%). The nurse as an administrative tool within the Health Institution, needs to seek knowledge about this segment of the economy, recognizing its role as a transforming agent and seeking a balance between quality, quantity, and costs when deciding how to distribute the available financial resources.

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Article	Country/year	Study Design	Main Findings
16. Nursing, economics and endoscopic surgery Pediatric Hospital (38) <u>Autores:</u> Prat I. Baños D, Flores J, García A.	Cuba/2015	Quantitative.	• In relation to the conventional procedure, the work performed by the nursing professional in Endoscopic Surgery shows a reduction in risks for people and contributes in reducing hospital costs.

Source: own elaboration resource from the descriptive qualitative analysis of the included texts.

Table 2. Qualitative-descriptive synthesis of the articles

Characteristics	Categories	Quantity
Year of publication	2000 - 2004	3
	2005 - 2009	8
	2010 - 2014	5
	2015 - 2018	2
Study design	Quantitative Study	8
	Case study	4
	Structured literature search	3
	Literature Review	3
Country of Origin	United States of America	14
	Brazil	2
	Portugal	1
	Cuba	1
Base de datos	MEDLINE/PUBMED	10
	OVID	5
	SCIELO	3
	Cinikal Key	0

Source: own elaboration resource from the descriptive analysis of the included texts.

Table 3. Description of articles by categories

Category	Associated Articles
Health economics: quality of care and nursing.	Nurse Staffing In Hospitals: Is There A Business Case For Quality? <u>Authors</u> . Needleman J et al. ⁽²⁵⁾
	The Costs of Nurse Turnover, Part 1. An Economic Perspective. <u>Authors</u> : Jones CB. ⁽²³⁾
	The Costs of Nurse Turnover, Part 2. <u>Authors</u> : Jones CB ⁽²⁴⁾
	Exploring the Cost-Effectiveness of Unit-Based Health Promotion Activities for Nurses. <u>Autores</u> : Palumbo M V. et al ⁽³⁶⁾
	Hospital Restructuring and Its Impact on Outcomes Nursing Staff Regulations are Pre-mature. <u>Authors</u> : Sovie MD et al. ⁽²¹⁾
	Effects of hospital care environment on patient mortality and nurse outcomes. <u>Authors</u> : Aiken et al ⁽²⁹⁾
	Dificultades y oportunidades para la enfermería: una revisión narrativa sobre evaluación económica en salud. <u>Authors</u> : Mata V, Schutz V, Peregrino Antonio/ Difficulties and opportunities for nursing: a narrative review on economic evaluation in health. <u>Authors</u> : Mata V, Schutz V, Peregrino Antonio ⁽³⁷⁾
Health economics: costs and nursing.	Costos de las actividades de enfermería realizadas con mayor frecuencia a los pacientes de alta dependencia hospitalizados. <u>Authors</u> : Fernandes Costa Lima A et al /Costs of nursing activities carried out more frequently to hospitalized high-dependency patients. <u>Authors</u> : Lima A et al ⁽³³⁾
	Estimating nursing costs-A methodological review. <u>Authors</u> : Chiang B. ^(28/)
	Nurse Staffing In Hospitals: Is There A Business Case For Quality? <u>Authors</u> . Needleman J et al. ⁽²⁵⁾
	Nursing, economics and endoscopic surgery Pediatric Hospital. <u>Authors</u> : Prat I et al. ^(38/)
	The Costs of Nurse Turnover, Part 1. An Economic Perspective. <u>Authors</u> : Jones BD. ⁽²³⁾
	The Effect of a Multidisciplinary Hospitalist/Physician and Advanced Practice Nurse Collaboration on Hospital Costs. <u>Authors</u> : Cowan MJ et al. ⁽²⁶⁾
	The Costs of Nurse Turnover, Part 2. <u>Autores</u> : Jones BD. ⁽²⁴⁾
	A literature review of nursing turnover costs. <u>Authors</u> . Li Y, Jones CB. ⁽³⁵⁾
	Revisiting Nurse Turnover Costs. Adjusting for Inflation. <u>Authors</u> : Jones CB. ⁽³⁰⁾
	Hospital Restructuring and Its Impact on Outcomes Nursing Staff Regulations are Pre-mature. <u>Authors</u> : Sovie MD et al ⁽²¹⁾
Hospital nursing, billing and reimbursement. <u>Authors</u> : Welton JM. ⁽²⁷⁾	

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Category	Associated Articles
Health economics: effectiveness and nursing.	Effectiveness of Psychiatric Mental Health Nurses: Can We Save the Core of the Profession in an Economically Constrained World?. <u>Authors:</u> Santos JC, Amaral AF ⁽³²⁾
	The Costs of Nurse Turnover, Part 1. An Economic Perspective · <u>Authors:</u> Jones CB ⁽²³⁾
	The Effect of a Multidisciplinary Hospitalist/Physician and Advanced Practice Nurse Collaboration on Hospital Costs. <u>Authors:</u> Cowan MJ et al ⁽²⁶⁾
	Physician – nurse practitioner teams in chronic disease management: the impact on costs, clinical effectiveness, and patients’ perception of care. <u>Authors:</u> Litaker D et al. ⁽²²⁾
	A Modest Proposal: Nurse Practitioners to Improve Clinical Quality and Financial Viability in Critical Access Hospitals <u>Authors:</u> Marsh L et al . ⁽³⁴⁾

Source: own elaboration resource from the descriptive qualitative analysis of the included texts.

DISCUSSION

This study allowed us to know the implications of nursing on health economics as seen in the literature, considered as a field of study with broad edges that allows for the analysis of various decision-making strategies that guide towards efficient and rational possibilities for health management.

In this sense, the various observable and unobservable aspects that the Nursing profession has in these matters, should be of permanent analysis and consideration by decision-makers, due to its high representation in the total workforce in the world and the diversification of activities associated with people’s health care (39,40,41), as ways of responding to access, quality of health care, and universal health coverage (42); in times when these variables become fundamental in the face of the diverse health needs of people (43, 44).

Health economics: quality of care and nursing

In this regard, the evidence included in this research process suggests a relationship between healthcare quality and prominent components such as the development of human capital, which is considered a strategy that theoretically makes people more productive than others without the same development complement (23, 25). In this sense, the studies suggest that individual

investments benefit the organizations where the nursing professional works, as well as society in general, which in turn benefit from the unique contributions that these professionals make in the form of knowledge, skills, decision making, safety, and care of people (23, 25, 28). Likewise, this knowledge makes organizations more productive, increasing the financial performance of the organization, with a direct impact on quality and user satisfaction (23).

For this reason, hospital investment in nursing in terms of expenses, as well as income and productivity, need a broader knowledge (24), which incorporates, in the analysis of factors associated with the health economy, items such as: adequate care settings (29); health promotion in staff (36); increased staffing and professional working hours, incorporating new professional hiring (24); implications of the rotation and retention of nurses (23,24). However, the value of patient care, defined as the relationship between quality and costs (21), is one of the elements that is mainly or on some occasions only used to define these aspects.

Although it is true that human capital development, increased hours, professional rotation, and staff retention are costly factors for health organizations, translated into net increases in hospital costs (23,24,25). In any case, it is necessary to recognize the transforming role of nursing and seek a balance between quality, quantity, and costs when deciding how to distribute the available financial resources (37) to achieve a direct impact on quality and user satisfaction (23, 29).

Health economics: costs and nursing

In relation to this topic, the different studies show the challenges posed by the significant nursing costs for health care (27, 28, 33). Which constitute at least a quarter of the operating budget of a hospital establishment and make up the individual workforce cost for hospitals (27, 29). This means that the provider makes greater efforts to analyze them in detail, as Chiang (28) points out, in order to achieve “better pricing decisions”, and being more efficient in cost management.

In this sense, the review showed that the net increase in hospital costs is related to an increase in nursing professional hours, an increase in staffing, (21, 25) rotation and retention of the nursing professional in health organizations (23,24), in addition to investment in specialties for the care of people (23, 38). All these factors should become a managerial priority given the impact on the value of quality and satisfaction in health, both from the social and hospital perspective (23), considering that investing in quality by incorporating these elements directly impacts costs (26), becoming a competitive advantage by having a stable, productive, and satisfied nursing workforce (24).

On the other hand, other elements that contribute to strengthening the financial management of clinical processes and that work in a recursive way are revealed: cost studies (33), safety and quality considerations (23, 25, 26), reduction of rotation (23, 32, 35), multidisciplinary management of patient care, collaboration between the doctor-nurse binomial, improvements to continuity, care planning (26), and work to minimize the hospital stay of patients (35)

Health Economy: effectiveness and nursing

Finally, the literature shows that the nursing professional constitutes one of the main “cost management tools”, since it is present in various clinical services and always close to its users, which facilitates the evaluation of their interventions and care (45). Considering that effectiveness has been conceptually defined as “the added value or impact that a product or service gives to a customer or user and that allows them to improve their quality of life or satisfy a need”(45), added to the fact that it has a great relationship with the quality perceived by users. From these perspectives, the texts included in this category reveal a fundamental contribution of nursing to the health economy.

Therefore, it is important to ascertain the identity, efficacy, and effectiveness of the nursing professional work, identifying the contribution it makes to patients and clinical processes (32, 46, 47).

In addition to this, and in the broad sense of the conceptual definition of effectiveness that emphasizes the great importance of achieving goals or objectives (48), and the great relationship between effectiveness and the approach to quality (49), the review highlights collaborative work (22, 26), investment in strategies for loyalty of nursing professionals (26, 33), and recognition of the professional role (32), as structural elements to strengthen the effectiveness of health management.

That is why the nursing professional should be a concern for organizations, taking into account that meeting the needs of users, family members, and other interested parties is the “maximum expression of success” (49) in organizations, health being this case. Considering also, the evidence that relates the nursing professional, with the results for the patient (50), and the permanent importance given by the nursing professional to the quality of care in their commitment to patient safety and continuous improvement (51).

CONCLUSION

The present research process made it possible to describe the implications - as seen in the literature - of nursing on health economics. In this sense, different links were observed between nursing activities and health economics, in three main aspects: quality of care, costs, and effectiveness. In each of them, there is a wide range of related factors, which emphasize the recognition of the professional role of nursing, as a means to strengthen the effectiveness of health management and, in the same way, the quality of health care.

Although, it is true that the research process allowed for finding elements aiming at understanding the relationship between the nursing professional in matters of health management and health economics; it is necessary to deepen this, through new investigative strategies that demonstrate their real and significant impact on the efficient and effective management of resources.

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