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THE INFLUENCE OF MANAGED CARE ON THE PHYSICIAN'S PERCEPTION OF PROFESSIONAL AUTONOMY: A SCOPING REVIEW

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Abstract: The present study undertakes a scoping review on the influence of managed care on the perception of physicians' professional autonomy to determine how many studies there are in the literature on the perception of decreased physician's professional autonomy with the introduction of managed care, the consequences of this for the health system and studies that indicate possible coping strategies for this problem.
Online databases were used to identify articles published from 2017 to 2021.
Two articles related managed care to a decrease in professional autonomy, six articles showed a relationship between independence and professional satisfaction, and three articles concluded that a decrease in autonomy contributes to physicians' rejection of managed care. Two articles related physicians' resistance to innovation in information technology (IT) due to fear of reduced autonomy. One article related the decrease in autonomy to the decline in the supply of new professionals and three articles indicated that the management model focused on stimulating intrinsic motivators, such as professional autonomy, can generate promising results.
Although robust studies are showing that managed care interferes with the perception of the physician's professional autonomy with consequences for the health system, there is still a lack of studies that assess the best strategy for coping with this problem.

Keywords: professional autonomy, burnout, managed care, health care reform, professionalism

La influencia de la atención gestionada en la percepción de la autonomía profesional del médico: una revisión exploratoria

Resumen: El presente estudio realiza una revisión de alcance sobre la influencia de la atención gestionada en la percepción de la autonomía profesional de los médicos, con el objetivo de identificar cuántos estudios existen sobre la percepción de la disminución de la autonomía profesional de los médicos tras la introducción de la atención gestionada, las consecuencias de esto para el sistema de salud y los estudios que indican posibles estrategias de afrontamiento para este problema. Para ello se utilizaron bases de datos en línea para identificar artículos publicados entre 2017 y 2021.
De los estudios revisados, dos artículos relacionaron la atención gestionada con una disminución de la autonomía profesional, seis mostraron una relación entre la independencia y la satisfacción profesional, y tres concluyeron que la pérdida de la autonomía contribuye al rechazo de los médicos a la atención gestionada. Dos estudios relacionaron la resistencia de los médicos a la innovación en tecnología de la información (TI) con el temor a perder autonomía, mientras que un artículo relaciona la disminución de la independencia con la caída de la oferta de nuevos profesionales. Finalmente, tres indican que el modelo de gestión centrado en estimular motivadores intrínsecos, como la autonomía profesional, puede generar resultados prometedores.
A pesar de que existen estudios sólidos que demuestran la atención gestionada interfiere en la percepción de autonomía profesional y tiene consecuencias para el sistema de salud, todavía faltan estudios que evalúen las mejores estrategias para hacer frente a este problema.

Palabras clave: autonomía profesional, burnout, atención gestionada, reforma de la atención sanitaria, profesionalismo

A influência do cuidado gerenciado na percepção do médico de autonomia profissional: uma revisão de propósitos

Resumo: O presente estudo conduz uma revisão de propósitos na influência de cuidados gerenciados na percepção de autonomia profissional de médicos para determinar quantos estudos há na literatura sobre a percepção de diminuição da autonomia profissional de médicos com a introdução de cuidados gerenciados, as consequências disso para o sistema de saúde e estudos que indicam possíveis estratégias de enfrentamento desse problema.
Desenho. Bancos de dados online foram usados para identificar artigos publicados de 2017 a 2021.
Resultados. Dois artigos relacionam cuidados gerenciados com uma diminuição de autonomia profissional, seis artigos mostraram uma relação entre autonomia e satisfação profissional, e três artigos concluíram que uma diminuição na autonomia contribui para a rejeição dos médicos de cuidados gerenciados. Dois artigos relacionaram a resistência de médico para inovação em tecnologia da informação (TI) devido ao medo de autonomia reduzida. Um artigo relacionou a diminuição na autonomia ao declínio no suprimento de novos profissionais e três artigos indicaram que o modelo de gestão focado em estimular motivadores intrínsecos, como a autonomia profissional, pode gerar resultados promissores.
Conclusões. Embora existam estudos robustos mostrando que os cuidados gerenciados interferem com a percepção de autonomia profissional de médicos com consequências para o sistema de saúde, ainda faltam estudos que avaliem a melhor estratégia para o enfrentamento desse problema.

Palavras chave: autonomia profissional, exaustão (burnout), cuidado gerenciado, reforma dos cuidados à saúde, profissionalismo

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Introduction

Managed care has contributed to major changes in physicians' relationships with patients and their role in the healthcare system*(1)*.

Industrialized nations are pursuing market-based financing models with a focusing on equity in access to care, quality of care, health status and efficiency*(2)*.

The objective of promoting the population`s health, and providing a good experience of patient care at a low cost is fundamental to improve the performance of the health system. However, doctors are not satisfied. Medical burnout is a growing concern worldwide*(3)*.

This suggests that in practice doctors are being neglected, despite being essential to the future development of Managed Care*(4)*.

Managed care reduced the level of professional satisfaction of physicians, and this is due not only to the reduction in income but also to the reduction of professional autonomy*(5)*.

Research shows that health system reforms, by interfering with professional autonomy, affected professions and professionalism in the health area. Professionalism is a work logic defined by high autonomy and self-control, governed by a code of ethics independent of management requirements*(6)*.

Before managed care, the healthcare system was underpinned by medical professionalism, with physicians enjoying high levels of autonomy*(6)*. However, doctors are increasingly being hired as employees by large healthcare organizations, a fundamental shift from the individual practice model of the past*(1)*.

This change led to a strong dependence on the material motivation of physicians and rigidity in following evidence-based medicine*(2)*.

Professional autonomy is the domain that professionals have over their work. The doctor's professional autonomy is divided into three categories: independence in clinical work; social and economic freedom from work; and power to influence organizational decisions*(7)*.

Clinical work independence refers to the ability to decide how to care for a patient without the intrusion of organizational procedures, financial concerns, or performance measurement systems. The social and economic freedom of work represents the ability of doctors to determine their movements, priorities, schedules and workload. The power to influence organizational decisions is related to the ability of physicians to participate in organizational and managerial choices and to influence the organization's strategic decisions*(7)*.

The physician's professional autonomy is directly related to career satisfaction, and this is reflected in the quality of care measured by prescription standards, adherence and patient satisfaction. Physician turnover has important financial implications, and the estimated cost of replacing a primary care physician ranges from $240,000 to $265,000*(1)*.

Physician career satisfaction influences the attractiveness of the medical profession, shaping the quantity and quality of the medical school entry pool, as well as the selection and distribution of specialties. Thus, satisfaction with a physician's career can shape the physician workforce*(1)*.

Medical burnout increases the rate of self-reported medical errors and is associated with lower patient satisfaction*(3)*.

The analysis of the influence of managed care on the perception of professional autonomy and its consequences for the health system is important for the elaboration of strategies capable of consolidating managed care and reducing physicians' rejection of reforms and innovations in the health system, and therefore being a broad topic, the scope review method was chosen for the preparation of this study.

Objective

This scoping review aims to examine the existing literature in the last five years

on the influence of managed care on the perception of physicians' professional autonomy to determine how many studies there are in the literature on the perception of decreased physician's

professional autonomy with the introduction of managed care, the consequences of this for the health system and studies that indicate possible coping strategies for this problem.

Method

The methodology used in this research work was the scoping review. A scoping review synthesizes knowledge and incorporates a variety of study designs, to guide future research priorities*(8)*.

Our protocol was prepared according to PRISMA Extension for Scoping Reviews (PRISMA-ScR): checklist and explanation*(9)*, the final protocol was registered with the Open Science Framework on March 1, 2023

The scoping review is particularly useful for bringing together literature across disciplines with emerging evidence, addressing questions beyond those related to the effectiveness or experience of an intervention. Its value is in looking at a wider area to identify gaps, clarify key concepts, and report on the types of evidence that exist*(10)*.

The preparation of this article followed a process consisting of five steps: a) Identifying the research questions; b) Identifying the relevant studies valid for the investigation; c) Selecting the review studies; d) Mapping the data from the studies included in the review; e) Confronting, summarizing, and reporting the results*(8)*.

The guiding question of the research was: "What is the available evidence on physician's professional autonomy in managed care?".

This review was conducted in the PubMed/MEDLINE, Web of Science and Scopus databases. For this, the same descriptors were used for each of the databases of this review.

The controlled descriptors used were: "Professional autonomy", "Managed care" and "Physician", and for the combination of descriptors, the Boolean operators AND were used. The search was conducted using as time parameter the articles published in the last 5 years.

The inclusion criteria used were the articles should contain the words "Professional autonomy" and "Managed care"; present as objective the demonstration of the influence of managed care in the professional autonomy of the physician; be related to health organizations and/or to the provision of managed care.

Exclusion criteria were articles that addressed the themes of managed care and professional autonomy separately; that addressed professional autonomy, but not directly related to the medical profession; and that the theme of professional autonomy of the physician was not an important objective or result of the article.

The typology of the article did not configure as inclusion and/or exclusion criteria. The search for the study took place on 13 November 2021 using the advanced form.

Primary studies were selected, after analysis by two independent reviewers, according to the guiding question, inclusion and exclusion criteria. The instrument used to extract data from the included studies consisted of the following items: 1- article identification; 2- objective of study. Selection steps included identification, screening, eligibility and inclusion.

Results

Ninety-nine articles were found, 6 in the Web of Science, 3 in PubMed/MEDLINE and 90 in Scopus. After proceeding to the inclusion and exclusion criteria, two successive evaluations and disregarding duplicated articles, seventeen publications *(1,2,15-21,3,4,6,7,11-14)* were relevant for this review, since they met the study question and the pre-established criteria, as explained in the analysis flowchart (Figure 1)*(22)*.

The articles were analyzed according to the guiding question of the study and the selected articles are shown in the table 1 and 2 at the end of the article.

The articles included in this scoping review were published between the years 2017 to 2021, with 14 articles published in the last 3 years, suggesting a growing interest on the topic in recent years *(1,2,17,19-21,3,4,6,11-15)*.

Most articles were written by European authors,

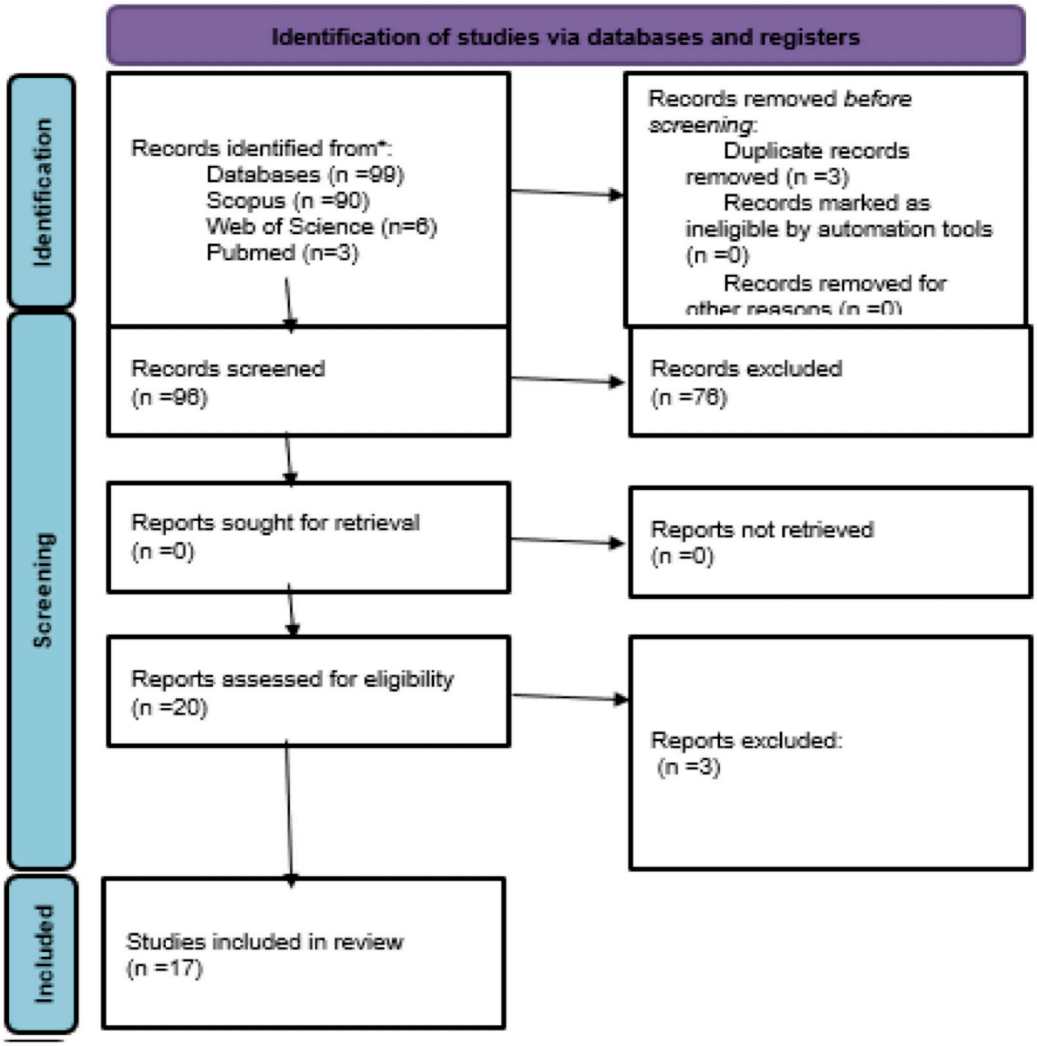


Figure 1 - analysis flowchart

10 in total*(2,4,6,7,12,15,17,18,20,21)* followed by American authors, with a total of 3 articles*(1,16,19)* and the authors of the remaining articles are from Japan(14), Taiwan(3), China(13) and Korea(11).

Five articles were published in medical journals*(1,3,14,17,18)*, seven articles were published in medical journals, seven articles were published in management and health systems journals*(2,4,7,11-13,16)*, four articles were published in social science journals *(6,19-21)* and one article published in an information system journal(15).

Six articles showed that the perception of decreased professional autonomy was related to decreased professional satisfaction*(7,11,13,1719)*, two articles related the managed care to the decrease of professional autonomy*(2,20)* and three articles concluded that the loss of professional autonomy contributes to the physician's rejection to managed care*(4,6,12)*.

Two articles related physicians' resistance to information technology (IT) innovation with the perception of decreased professional autonomy that innovation could cause*(15,21)*.

One article related the decrease of professional autonomy to the decline of new professionals*(14)* and three articles indicated that management and leadership model focused on primary well-being and stimulation of intrinsic motivators, such as professional autonomy may generate promising and longer-term results*(1,3,16)*.

The results found were diagrammed in the figure below (figure 2).

Discussion

In the broadest sense, professionalism is defined along three main dimensions: expertise, self-regulation, and an obligation to subordinate self-interest to the needs and interests of the client. Within the specific context of the medical profession, there has been an emphasis on altruism and the responsibility of physicians to embrace values that place the medical needs of patients above physicians' self-interest. High moral and ethical standards, recognition of and commitment to the needs of society and humanistic values such as integrity, reliability, respect, and empathy are also recognized as key elements of medical professionalism*(5)*.

Autonomy is related to professionalism on several levels. Collectively, it refers to the control of entry standards and the definition of terms of work. Individually encompasses both altruistic motivations and self-interest. Commitment to professional values and patient needs has made physicians achieve a unique social stature. Conveying a high degree of individual autonomy to control the terms and content of their work. In addition to aspects related to clinical decision-making, there are other prerogatives of control over work. Autonomy in this last aspect, although not related to patient care, remains a highly valued privilege among physicians*(5)*.

The physician´s professional autonomy has three dimensions: independence from clinical work; social and economic freedom from work; and power to influence organizational decisions*(7)*.

Clinical work independence is the physician's ability to decide how to care for the patient without

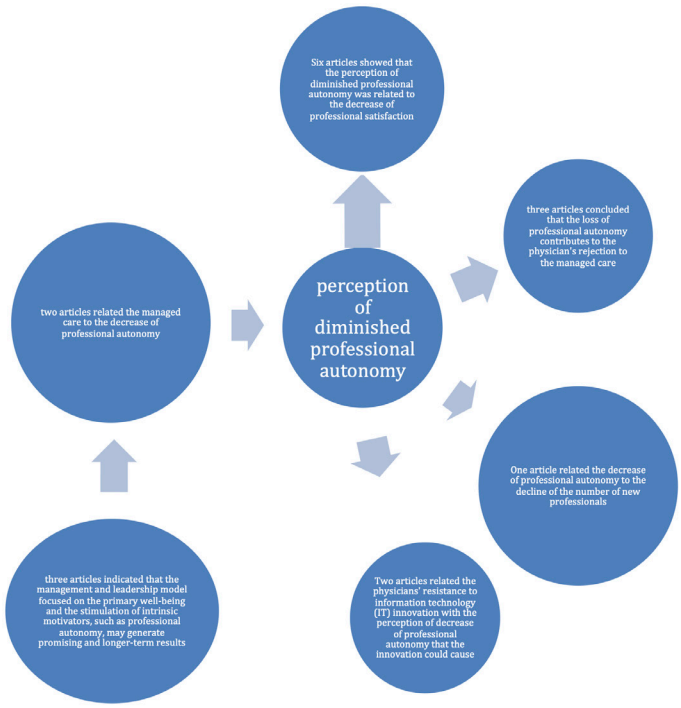


Figure 2. results diagram

being constrained by organizational procedures, financial concerns, or performance measurement systems*(7)*.

Social and economic freedom from work is control over earnings, and the nature and volume of the task. Represents physicians' ability to determine their priorities, schedules, and workload. The arrangements of a health system greatly influence this aspect. The social and economic freedom of a state-employed physician in a country with universal health care is different from that available to a self-employed physician in a country with health insurance. The power to influence organizational decisions refers to the participation of physicians in the organization's strategic decisions*(7)*.

Health systems in all countries of the world have the need to reduce costs despite the aging of the population, the burden of treating chronic diseases and the high price of new health technologies*(20)*.

Managed care established a new level of organization in health care enabling cost containment and quality improvement*(23)*.

Managed care brought about a profound transformation in the architecture and process of providing health care, promoting a shift in focus from the individual relationship between doctor and patient to the existing relationship between health institutions and the population served. Thus, an organizational perspective was created in parallel with the individual performance of the physician, with considerable potential for conflict*(23)*.

Managed care has implemented process and organizational innovations to improve population health, reducing the per capita cost of care and improving the experience of patients receiving care*(19)*.

Process innovation means "the same product, but at a lower cost". It is often imposed on an industry by competitors and usually implies a faster pace of work. Organizational innovation often occurs in the form of vertical integration and focusing on someone's core skills sometimes requires outsourcing certain tasks*(21)*.

These innovations have brought numerous reforms in the financial incentives that drive the demand and supply of medical services, with the primary goal of shifting the volume-based purchasing system of health services to value-based purchasing of health care. This shift features value-based metrics for quality and efficiency. The underlying assumption behind these new payment structures, often referred to as payment for performance (P4P), is that they will lead to improved health by encouraging health professionals to closely adhere to clinical guidelines*(19)*.

Another reform of the health system was the creation of modular services and service packages. Service packages are designed to treat common and known diseases. In this modular service delivery zone, the availability of resources, service design, such as well-established treatment protocols and service component specificity, quality metrics, enabling technologies and provider service differentiation resources, is high. Consequently, service delivery operations offer greater opportunities for service co-creation, greater flexibility through the combination of components and higher levels of efficiency*(24)*.

These organizational policies, in addition to optimizing the cost-effectiveness of healthcare investments, can exert a powerful influence on the attitudes and experiences of physicians and patients as they interact, but can misrepresent the behavior of healthcare organizations*(23)*.

If sometimes the imperative of profit imposed on hospitals by market-oriented policies is responsible for their distorted behavior, the medical practice itself has also been submitted to the logic of insurance companies ("managed care" for profit) by temporary contracts and "preferred provider". The most negative impacts that "managed care" can have on the quality of medical care lie in its rigid restrictions on physicians' professional autonomy, considering that this autonomy is important for health care to be biopsychosocial; central dependence on physicians' material motivation, through fee-for-service, pay-for-performance, combination of pay and other plans, and inducing fragmentation of health services, which makes communication, clinical coordination, continuing medical education and evaluation across institutional divisions difficult; and tendency to make

the application of evidence-based medicine too rigid and commercial*(2)*.

While most physicians extract great meaning and purpose from their work, many also feel as if they are the "wheel cogs" of austere corporations that care more about productivity and finances than compassion or quality. Physician performance is now evaluated by a host of metrics (e.g., cost measures, patient satisfaction scores, how quickly they sign notes or respond to messages in the electronic health record inbox) that can overshadow the appreciation and respect of patients and colleagues who have traditionally served as physicians' primary source of feedback. These tactics can make physicians feel disrespected and micro-managed by a bureaucracy that does not recognize the nature of their work. The problem is compounded by extensive regulatory oversight, administrative burden, the implementation of suboptimal electronic health records used to enforce supervisory mandates, and other factors that can distort the meaning and purpose of work*(1)*.

Professional autonomy is a privilege of physicians and for this reason they resist changes that threaten them*(15)*.

Exhausted physicians are less empathetic, are more likely to make mistakes and prescribe unnecessary medications or tests, and their patients report lower levels of satisfaction and have longer post-discharge recovery times. Other health professionals, such as nurses, also report lower levels of satisfaction when working with burnt-out physicians. Burnout represents a high cost for health organizations in early retirement. Physicians lost to burnout cost well over $200,000 to replace. A 2012 population survey of general practitioners found that 45% reported at least one of the three symptoms of burnout, and these rates are increasing and suggest an impending crisis*(16)*.

Job satisfaction is an important consideration for medical graduates to choose a specialty, and the high rate of Burnout in some medical specialties may contribute to a shortage of professionals*(14)*.

Dissatisfaction with the profession and the perceived loss of professional autonomy also act as the main threats perceived by physicians to the implementation of innovations, including health information technology innovations, and direct impact on user resistance, where the more physicians and nurses perceive the loss of professional autonomy, the more likely they are to resist these innovations*(15)*.

The preservation of professional autonomy facilitates the implementation of innovations such as information technology. These innovations deliver services, and their operation is enhanced when each actor acts autonomously within the clinical guidelines developed by the institution. Professional autonomy helps stakeholders make the best clinical decisions*(24)*.

Conclusion

Job satisfaction is an important means of self-realization and quality of life, in addition to increasing employee productivity and having a long-term positive impact on the institution*(11)*.

Medicine is a highly gratifying occupation, but with great potential to generate stress, as any mistake can be fatal. A doctor is an important part of the health care system*(11)*.

Physicians' professional satisfaction is related to the reduction of medical expenses and the stability of the health system's workforce. Thus, job satisfaction for physicians is not just a personal issue but a health system-wide issue*(11)*.

The understanding about the factors that influence the physician's job satisfaction should be better understood. The organismic integration theory classifies the motivating factors of job satisfaction into intrinsic and extrinsic*(3)*.

Intrinsic motivators (IM) are when involvement in an activity is purely for its intrinsic pleasure or meaning. Contributors to intrinsic motivators are competence (the belief that the task is achievable), autonomy (opportunity to decide how to accomplish the task) and relatedness (task to some larger meaningful goal). Intrinsic motivators are robust in inspiring sustained and persistent effort and are considered the pinnacle of self-determination. Extrinsic motivators include financial incentives, titles, and awards*(19)*.

Intrinsic motivators, including autonomy, may increase job satisfaction, while poor extrinsic motivators, such as low pay, may lead to job dissatisfaction, but better extrinsic motivators may not lead to higher job satisfaction*(3)*.

Job satisfaction increases when doctors think that their autonomy is guaranteed*(11)*.

Professional autonomy is the ability to control the organization and terms of one's work. Today, the image of the doctor is still influenced by professionalism and its consequent autonomy*(13)*.

However, almost all developed countries are seeking better and more efficient ways to deliver medical services, and their health systems are in processes that reconfigure professional practice. The managerialism present in healthcare reforms establishes actions that are perceived as strengthening management control and economic rationalities, as opposed to professional autonomy, in decision-making*(20)*.

Value-based purchasing of health services is premised on the "triple aim" of bringing about improvements in the quality of health care, reducing the per capita cost of care and improving patients' experience of receiving care. The "triple aim" approach has escalated the amount, intensity, and pace of clinical work, reducing physician autonomy, resulting in negative effects on job satisfaction and occupational well-being*(19)*.

Managerialism in healthcare organizations can therefore be interpreted as a form of de-professionalization within the medical profession, as doctors lose power due to the loss of autonomy through better management control*(20)*.

Dissatisfaction and the perceived loss of professional autonomy are the main threats perceived by physicians that generate resistance to the implementation of information technology*(5,6,15)*. The dissatisfaction and the perceived loss of professional autonomy are the main threats perceived by physicians that generate resistance to the implementation of information technology, and in a similar way may be associated to the physicians' resistance to the implementation of health system reforms and the implementation of New Public Management policies, since many physicians feel threatened by giving up part of their professional autonomy in the course of managed care*(4)*.

On the other hand, physicians who perceive that the health organization preserves their autonomy will recognize an organizational image that preserves the continuity of their self-concept and increases their self-esteem, thus creating a strong organizational identification*(13)*.

Encouraging explicit recognition by health systems of the duty to include medical professional care, in the already established policy of patient-centered care, may reduce physician professional dissatisfaction and Burnout, and decrease reliance on financial stimuli to promote physician support*(16)*.

However, we still have few works that analyses the strategies to achieve this goal and compare the results with other forms of managerialism more dependent on extrinsic motivators.

This scoping review shows that managed care can influence physicians' perception of professional autonomy and found articles that show that the decrease in physicians' professional autonomy can have negative consequences for health system reforms, but evidence on the best ways to mitigate this problem is still limited.

Ethics approval and consent to participate

Not applicable.

Consent for publication

Not applicable.

Availability of data and materials

Not applicable.

Competing interests

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Table 1 - Characterization of the articles chosen

Author	Article Title	Magazine	Year of publication	Author's parents	Type of article
Ehlert, A; Oberschachtsiek, D.	Why do German physicians reject managed care?	Int J Health Plann Mgmt	2019	Germany	Original Article
Unger, JP; Paepe, P.	Commercial Health Care Financing: The Cause of U.S., Dutch, and Swiss Health Systems Inefficiency?	International Journal of Health Services	2019	Belgium	Original Article
Henrich, P; Bolter, R; Wensing, M.	Influences on Physicians' Participation in Coordinated Ambulatory Cardiology Care: A Mixed-Methods Study.	International Journal of Integrated Care	2020	Germany	Original Article
Zweifel, P.	Innovation in health care through information technology (IT): The role of incentives.	Social Science & Medicine	2021	Austria	Original Article
Kameyama, N; Nagai, H; Ikoma, N.	Job Characteristics Affecting Japanese Surgeons' Satisfaction Levels.	Journal of Surgical Research	2021	Japan	Original Article
Shanafelt, T; Trockel, M; Rodriguez, A; Logan, D.	Wellness-Centered Leadership: Equipping Health Care Leaders to Cultivate Physician Well-being and Professional Fulfillment.	Academic Medicine	2021	USA	Original Article
Tung, YC; Chou, YY; Chang, YH; Chung, KP.	Association of intrinsic and extrinsic motivating factors with physician burnout and job satisfaction: a nationwide cross-sectional survey in Taiwan.	BMJ Open	2020	Taiwan	Original Article
Alohali, M; Carton, F; Oconnor, Y.	Investigating the antecedents of perceived threats and user resistance to health information technology: a case study of a public hospital.	Journal of Decision Systems	2020	Ireland	Original Article
Agartan, IT.	Conceptualizing professional and public interest in the context of Turkey's health care reforms.	International Journal of Sociology and Policy	2019	Turkey	Original Article
Jin, Y; Wang,h; Wang, D; Yuan,B.	Job satisfaction of the primary healthcare providers with	Human Resources for Health	2019	China	Original Article

	expanded roles in the context of health service integration in rural China: A cross-sectional mixed methods study.				
Rosta, J; Aasland, OG; Nylenna, M.	Changes in job satisfaction among doctors in Norway from 2010 to 2017: a study based on repeated surveys.	BMJ Open	2019	Norway	Original Article
Oh, Y; Kim, H; Kim, K.	Factors affecting Korean physician job satisfaction.	International Journal of Environmental Research and Public Health	2019	Korea	Original Article
Post, SG; Roess, M.	Expanding The Rubric of "Patient-centered Care" (PCC) to "Patient and Professional Centerd Care"(PPCC) to Enhance Provider Well-being.	HEC Forum	2017	USA	Original Article
Wilkesmann, M; Ruiner, C; Apitzsch, B; Salloch, S.	"I Want to Break Free"- German Locum Physicians Between Managerialism and Professionalism.	Professions & Professionalism	2020	Germany	Original Article
Waddimba, AC; Mohr, DC; Beckman, HB; Mahoney, TL; Young, GJ.	Job satisfaction and guideline adherence among physicians: Moderating effects of perceived autonomy support and job control.	Social Science & Medicine	2019	USA	Original Article
Scheepers, RA; Lases, LSS; Arah, AO; Heineman, MJ; Lombarts, KMJMH.	Job Resources, Physician Work Engagement, and Patient care Experience in an Academic Medical Setting.	Academic Medicine	2017	Netherlands	Original Article
Salvatore, D; Numerato, D; Fattore, G.	Physician's professional autonomy and their organizational identification with their hospital.	BMC Health Services Research	2018	Italy	Original Article

Table 2 - Categorization of the articles included

Author	Article Title	Objectives of the Article	Conclusion of the article
Ehlert, A; Oberschachtsiek, D.	Why do German physicians reject managed care?	To show which factors explain German doctors' rejection of managed care.	It showed that private patient participation, physician age, number of physicians in the specialty, administrative burden and loss of professional autonomy significantly increase the likelihood of physician rejection of managed care.
Unger, JP; Paepe, P.	Commercial Health Care Financing: The Cause of U.S., Dutch, and Swiss Health Systems Inefficiency?	To evaluate the performance of 3 industrialized nations that have pursued market-based health system financing models, with a focus on equity of access, quality of care, health status and efficiency.	It defends the hypothesis that health insurance is detrimental to access to health care and the health status of the population, and that the most negative impacts of managed care are its strong restrictions on professional autonomy, heavy reliance on doctors' financial motivation, fragmentation of health services and the very rigid application of evidence-based medicine.
Hennrich, P; Bolter, R; Wensing, M.	Influences on Physicians' Participation in Coordinated Ambulatory Cardiology Care: A Mixed-Methods Study	To identify the factors associated with medium participation and their relationship to the objectives of a managed care programmed for outpatient cardiology care in southern Germany.	The main motivation for participating in the programmed was financial and the reasons for not participating were mainly technical modifications, economic investment, and fear for professional autonomy.
Zweifel, P.	Innovation in health care through information technology (IT): The role of incentives.	Predict the circumstances in which patients, doctors, hospitals, health insurers and governments are likely to support healthcare innovation through IT.	It suggests that IT innovation enabling product innovation is welcomed by health professionals, while IT innovation enablement and organizational innovation are resisted by them for fear of losing professional autonomy.
Kameyama, N; Nagai, h; Ikoma, N.	Job Characteristics Affecting Japanese Surgeons' Satisfaction Levels	To characterize the work-related perceptions of medical surgeons and non-surgeons in Japan and their relationship with the career choice of new medical graduates.	Surgeons consider their work highly ethical and meaningful to patients, their sense of autonomy is lower than that of physicians in other specialties. Improving surgeons' working environments is an imminent necessity to prevent surgeon burnout and mitigate

			the decline in the number of new surgeons.
Shanafelt, T; Trockel, M; Rodriguez, A; Logan, D.	Wellness-Centered Leadership: Equipping Health Care Leaders To Cultivate Physician Well-being and Professional Fulfillment	To propose a new model of wellness-centered leadership that includes essential skills and qualities from the most important leadership philosophies, along with evidence on the relationship between leadership and physician wellness, promoting physician engagement and professional fulfillment.	It concludes that this wellbeing-centered leadership model relies primarily on intrinsic motivators (meaning, purpose, values and professional autonomy) to generate results, rather than focusing on extrinsic motivators (financial, titles and awards) that over time reduce professional motivation and contribute to forming disengaged professionals.
Tung, YC; Chou, YY; Chang, YH; Chung, KP.	Association of intrinsic and extrinsic motivating factors with physician burnout and job satisfaction: a nationwide cross-sectional survey in Taiwan	To systematically and simultaneously examine the association of intrinsic and extrinsic motivating factors with burnout and job dissatisfaction.	It concludes that promoting a work environment that supports intrinsic motivation and rewarding physicians fairly and equitably can reduce physician attrition and job dissatisfaction.
Alohali, M; Carton, F; Oconnor, Y.	Investigating the antecedents of perceived threats and user resistance to health information technology: a case study of a public hospital.	To investigate the perception of threats that lead physicians and nurses to resist the implementation of health information technology in a public hospital.	It concludes that the perception of dissatisfaction and the loss of professional autonomy are the main threats perceived by physicians and nurses in the implementation of health information technology in the hospital evaluated.
Agartan, IT.	Conceptualizing professional and public interest in the context of Turkey's health care reforms	To explore the relationship of professional interest and autonomy in the context of Turkey's healthcare reform, and to evaluate possible alternative explanations of why doctors may oppose reforms at various stages of the political process.	Doctors' opposition to Turkey's healthcare reform cannot be explained simply by the defense of their material interests or their restriction of autonomy, and among other factors it may be related to the damage in relation to their social reputation which was portrayed as greedy and selfish actors.
Jin, Y; Wang,h; Wang, D; Yuan,B.	Job satisfaction of the primary healthcare providers with expanded roles in the context of health service integration	To assess the association between the expanded roles of primary care physicians in managed care in China and their job satisfaction.	The increase in workload and decrease in proportional income, increase in work responsibilities, and low professional autonomy had a negative

	in rural China: A cross-sectional mixed methods study		impact on the job satisfaction of primary care physicians in China.
Rosta, J; Aasland, OG; Nylenna, M.	Changes in job satisfaction among doctors in Norway from 2010 to 2017: a study based on repeated surveys.	To assess the level of job satisfaction among general practitioners, hospital doctors and specialists in private practice in Norway between the years 2011 to 2017.	There was a statistically significant decrease in job satisfaction for general practitioners and hospital doctors in the period, the factors associated with this being workload, remuneration, job recognition and clinical autonomy.
Oh, Y; Kim, H; Kim, K.	Factors affecting Korean physician job satisfaction.	To assess the level of job satisfaction and the factors that interfere with job satisfaction among Korean doctors.	The factors that positively affected job satisfaction for doctors were maintaining positive relationships with patients through adequate consultation time, clinical autonomy, having healthy relationships with colleagues, good social reputation, adequate income and working hours.
Post, SG; Roess, M.	Expanding The Rubric of "Patient-centered Care"(PCC) to "Patient and Professional Centered Care"(PPCC) to Enhance Provider Well-being.	Propose expanding "patient-centered care" to "patient and professional-centered care" by making provider self-care an explicit part of the health system's mission and management strategies to decrease Burnout among health care providers.	It states that the proposed management change does not question the primacy of the doctor's commitment to patient welfare, nor the reduction of value and respect for patient autonomy, but it is a management strategy that reduces professional dissatisfaction and its consequences such as emotional exhaustion, depersonalization of patients and low personal fulfilment.
Wilkesmann, M; Ruiner, C; Apitzsch, B; Salloch, S.	"I Want to Break Free"- German Locum Physicians Between Managerialism and Professionalism.	To investigate the rise in the number of self-employed doctors in German hospitals and its relation to professionalism and managerialism.	The managerialism of organization decreases the professional autonomy of doctors who act as permanent employees of these organizations and consequently affects their professionalism, this has stimulated the increase in the number of autonomous doctors who provide temporary work in these hospitals with a higher level of professional autonomy. Thus, the tension between professionalism and managerialism existing at the organizational level is reconciled at the

			individual level by autonomous physicians.
Waddimba, AC; Mohr, DC; Beckman, HB; Mahoney, TL; Young, GJ.	Job satisfaction and guideline adherence among physicians: Moderating effects of perceived autonomy support and job control.	To investigate whether the perception of physicians regarding support for autonomy and work control interfered with job satisfaction and adherence to guidelines in a pay-for-performance context.	It concluded that payers who try to over-direct physicians can demotivate them and decrease their adherence to guidelines.
Scheepers, RA; Lases, LSS; Arah, AO; Heineman, MJ; Lombarts, KMJMH.	Job Resources, Physician Work Engagement, and Patient care Experience in an Academic Medical Setting.	To assess the relationship between the work engagement of doctors in an academic hospital and the perception of the patient experience of care.	Greater physician engagement at work did not translate in this study into better care in the patient experience. From the physician's perspective professional autonomy and the opportunity for learning stimulate their engagement at work.
Salvatore, D; Numerato, D; Fattore, G.	Physician's professional autonomy and their organizational identification with their hospital.	To study the interaction between doctors' professional identity, their organizational identity, and the role of professional autonomy in these processes of social identification.	It suggests that organizations should support the or+D14:D18ganisational and economic autonomy of their doctors to design an organizational identity that preserves the continuity of professional identity.