

Impact of Privatization on Healthcare System: A Systematic Review

Tareq M. Alayed, Assem S. Alrumeh¹, Ibrahim A. Alkanhal², Raghad T. Alhuthil³

Department of Critical Care Medicine, Pediatric Intensive Care Unit, ²Department of Academic and Training Affairs, ³Department of Pediatrics, King Faisal Specialist Hospital and Research Centre, ⁴Department of Laboratory, Prince Sultan Military Medical City, Riyadh, Saudi Arabia

Abstract

Background: A notable shift in healthcare policy is healthcare privatization, which refers to the transfer of ownership, management, or provision of healthcare services from the public sector to private entities.

Objectives: To provide a narrative examination of the impact of privatization on various dimensions of healthcare, including quality, equity, accessibility, and cost-effectiveness. Policymakers can utilize the findings of this study to make well-informed decisions regarding privatization strategies.

Materials and Methods: A systematic review was implemented using the following databases: PubMed, Scopus, and Google Scholar. Studies conducted from January 2000 to January 2023 in developing or developed countries that assessed the impact of healthcare privatization on population health within public sector institutions were included.

Results: Eleven studies were included. The findings revealed diverse perspectives on the impact of healthcare privatization, with four studies (36.4%) supporting privatization (two of these were conducted in Saudi Arabia), six studies (54.5%) opposing it (three of these were conducted in European countries), and one study (9.1%) taking a neutral stance. Two studies investigated the impact on healthcare quality, and both revealed that privatization negatively impacts uninsured patients and low-income populations. In addition, five studies investigated the healthcare access and equity dimensions following privatization: one was in favor, one was neutral, and three were opposing it. Four studies investigated the cost-effectiveness dimension, with three in favor and one study opposing it.

Conclusion: This review highlights different perspectives on healthcare privatization. While studies, as those from Saudi Arabia, suggest benefits in terms of efficiency and innovation, others, particularly from European countries, emphasize negative consequences such as inequity and reduced quality. This emphasizes the need for more investigations to understand privatization's impact on healthcare.

Keywords: Access to care, healthcare, healthcare delivery, impact, private sector, privatization, quality of health care, system

Address for correspondence: Dr. Tareq M. Alayed, Department of Critical Care Medicine, Pediatric Intensive Care Unit, King Faisal Specialist Hospital and Research Centre, Al Takhassousi 12713, Riyadh 11211, Saudi Arabia.

E-mail: tayaed@kfshrc.edu.sa

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INTRODUCTION

The global healthcare landscape has undergone significant transformations in response to the growing demand for healthcare services, budget constraints, and the pursuit of efficiency and quality.^[1] One of the notable shifts in healthcare policy and delivery is the privatization of healthcare systems. Privatization in healthcare refers to the transfer of ownership, management, or provision of healthcare services from the public sector to private entities, such as for-profit corporations, non-profit organizations, or individual practitioners.^[2] This change in ownership and management structure has generated extensive discourse among policymakers, healthcare professionals, and the public.^[1] The context of healthcare privatization is shaped by various factors, including economic, political, and social considerations.^[3] Several countries have implemented privatization initiatives in their healthcare systems,^[1] often driven by the belief that private involvement can lead to efficiency improvements, cost savings, and enhanced service quality.^[2] However, the impact of healthcare privatization is complex and context-dependent.

Privatization has been linked to increased growth and profitability in public firms, but its impact on consumers is not well-explored.^[4] In the US hospital sector, public control (the degree of government or public influence and management over hospitals) decreased by 42% between 1983 and 2019, raising concerns about potential trade-offs.^[4] The decline in public control implies an increase in privatization or a shift toward private ownership and management of hospitals. In addition, private operators enhance hospitals' financial performance by increasing mean revenue per patient. However, this is achieved, in part, by selectively reducing the intake of low-income patients, leading to an aggregate decline in their utilization and suggesting a potential decrease in access to care.^[4] Thus, there is a need to consider both the financial benefits and the impact on healthcare access when assessing hospital privatization.

The aim of this systematic review was to provide an exhaustive examination of the impact of healthcare system privatization on various dimensions of healthcare, including quality, equity, accessibility, and cost-effectiveness. Policymakers, healthcare administrators, and stakeholders can utilize the findings to make well-informed decisions regarding privatization strategies.

MATERIALS AND METHODS

The study adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) reporting guidelines.^[5]

Information sources and search strategy

A comprehensive literature review was conducted using the following databases: PubMed, Scopus, and Google Scholar. Studies published between January 2000 and January 2023, when the final search was carried out for all databases, were included. Appendix A provides the complete search strategy.

Eligibility criteria

The included studies adhered to the following criteria: were published in English, the full text was available, had an observational or interventional study design, and assessed the impact of healthcare privatization. Conversely, only abstracts, conference abstracts, letters to the editor, short communications, and meta-analyses were excluded. In addition, studies published before 2000 were excluded because the healthcare landscape and policies are dynamic and subject to continuous changes,^[1] and thus the time-based inclusion criteria allowed capturing the most recent and relevant information regarding healthcare privatization.

Selection and data extraction process

In terms of selection, studies of any populations (in developed or developing countries) whose health might be affected by privatization were included to avoid findings confounded by the more fundamental socioeconomic or political transformations accompanying privatization policies. Two investigators (T.M.A.) and (R.T.A.) independently screened the titles and abstracts of the studies retrieved in the searches. Then, another two reviewers (A.S.A. and I.A.A.) individually examined the titles and abstracts of articles that broadly matched the inclusion criteria. Subsequently, the two initial investigators (T.M.A. and R.T.A.) assessed the full text of the identified articles to ascertain their eligibility for the study. Any disagreements between the investigators were resolved through discussions.

Data were extracted using a standard data extraction sheet. This study was particularly focused on the effect of healthcare privatization on the various dimensions of healthcare, including quality, equity, accessibility, and cost-effectiveness. Data were extracted based on the PICO framework,^[6] as follows:

Population (P): The population encompassed individuals, patients or consumers, in developing and/or developed countries who benefit from the healthcare systems.

Intervention (I): The focal intervention was the privatization of healthcare services. Privatization was defined as the

transfer (either complete or partial) of public assets and shares to private ownership as well as the facilitation of substantial private-sector investment in a healthcare business.^[7]

Comparison (C): The studies evaluated or assessed the impact of healthcare privatization on healthcare.

Outcome (O): Outcome measures comprised both routinely collected and self-reported data, which gauged the effects of healthcare privatization on various aspects. These included physical health, mental health, injuries, absenteeism, financial burden, patient influx, patient access, patient and healthcare provider satisfaction, and staff satisfaction.

Assessment of study quality

The quality assessment of the included studies was independently evaluated by two reviewers (T.M.A. and I.A.A.) using the quality assessment tools for observational cohort and cross-sectional studies developed by the National Institutes of Health.^[8] Then, with agreement between all the authors, each study's quality rating was labeled as poor (i.e., a score of 0–4 of 14), fair (5–10), and good (11–14).

Data synthesis

Meta-analysis was not possible due to various reasons, including lack of homogeneity in the interventions and outcomes. Therefore, this systematic review uses a narrative synthesis, which allows inclusion of diverse study designs (qualitative and quantitative) without requiring data homogeneity for statistical pooling, thereby enabling a comprehensive exploration of the impact of privatization of the healthcare system.

RESULTS

In the initial searches, 175 papers were retrieved from PubMed, 200 from Google Scholar, and 25 from Scopus. After removing duplicates and applying the inclusion/exclusion criteria, 11 studies were included in the narrative synthesis [Figure 1]. The study encompassed different study designs, with a significant focus on cross-sectional and multi-model surveys. For the risk of bias, six studies received a fair rating, while five received a good rating [Table 1].

Table 2 provides a summary of the included studies. The findings reveal diverse perspectives on the impact of healthcare privatization, with four studies (36.4%) supporting privatization,^[9,10,13,15] six studies (54.5%) opposing it,^[12,14,16-19] and one study (9.1%) taking a neutral stance^[11] [Figure 2].

Impact of privatization on healthcare quality

Maarse's examination of healthcare privatization in European nations revealed negative effects on healthcare quality and equality, particularly impacting financially vulnerable populations.^[17] Ovretveit's study on Nordic privatization indicated increased patient service fees and declining healthcare quality, particularly for insured patients.^[18]

Effect of privatization on healthcare access and equity

Al-Jazaeri *et al.*'s study on cholecystectomy surgery in Saudi Arabia found that patients in public-sector hospitals have shorter symptom duration but longer waiting times and hospital stays compared with those attending private hospitals, suggesting that private hospitals provide quicker surgery access and shorter waiting times and hospitalization periods.^[9]

Conversely, Dahlgren's assessment of healthcare reforms in Sweden found a connection between privatization and increased healthcare access inequality. Privatization resulted in a shift in patient care priorities, favoring minor health issues over complex ones, ultimately compromising access and overall care quality.^[12] Davari *et al.*'s study in Iran identified adverse outcomes of privatization, including decreased healthcare service utilization and financial resources as well as negative impact on healthcare outcomes due to under-the-table fees and informal payments.^[14] Waitzkin *et al.*'s research on healthcare privatization in less-developed countries reported that privatization did not substantially improve access to healthcare, especially for vulnerable populations.^[16]

However, Yip's and Hsiao's study in China offers a nuanced perspective, emphasizing the link between higher gross domestic product (GDP) and enhanced healthcare access in privatized systems without explicitly endorsing or opposing privatization.^[11]

Cost-effectiveness of privatization

Three studies demonstrated a positive impact on this dimension. Alkhamis *et al.*'s study in Saudi Arabia emphasized on the effectiveness in private hospitals, where shorter hospitalization durations and same-day admissions were observed.^[10] Tiemann and Schreyögg's analysis of hospital efficiency after privatization showed significant improvements in various efficiency metrics, including changes in number of beds, the efficiency of non-profit and for-profit hospitals, and bed allocation. Notably, for-profit hospitals displayed increased efficiency and higher patient satisfaction.^[15] A study by Villa and Kane in the United States suggests that converting public

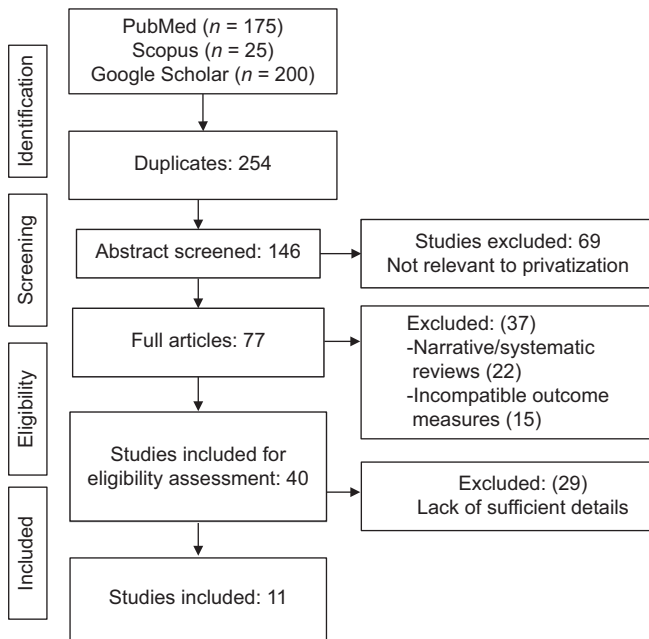


Figure 1: The PRISMA flow diagram depicts the flow of information through the different phases of a systematic review

hospitals to private ownership can enhance efficiency and profitability, supporting the argument that privatization can improve the sustainability of universal health coverage systems.^[13] In contrast, the study by Shen raised concerns about the cost-effectiveness of privatization, as it was found that privatized hospitals faced lower staffing levels and budgetary challenges compared with non-privatized hospitals.^[19]

DISCUSSION

This systematic review, based on an analysis of 11 selected studies, provides a comprehensive examination of the impact of healthcare privatization. The review's findings offer significant insights into the ongoing debate on healthcare privatization. Notably, the results indicate a diversity of perspectives on the effects of privatization in healthcare as specified below.

Impact on healthcare quality

Maarse^[17] and Ovretveit^[18] demonstrated that privatization has a negative impact on healthcare quality, particularly affecting uninsured patients and low-income populations. Similarly, Basu *et al.* expressed concerns about privatization's impact on healthcare quality, highlighting reduced quality in privatized healthcare settings, especially regarding safety and equitable care delivery.^[20]

On the other hand, a study by Passalent *et al.* demonstrated that privatization was associated with higher patient satisfaction scores, suggesting that the private sector

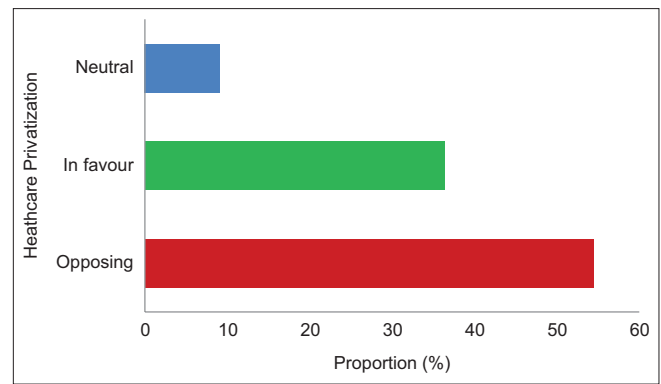


Figure 2: Categorization of the included studies' conclusion toward healthcare privatization

may excel in delivering quality care.^[21] However, the heterogeneity of findings across studies underscores the context-specific nature of the impact of privatization on healthcare quality.

Effect on healthcare access and equity

Equity and access to healthcare services are central concerns in the healthcare privatization debate, and the literature presents mixed findings on these issues.

For positive impact, only Al-Jazeerai *et al.*'s study in this review clearly demonstrated that privatization leads to more efficient healthcare delivery by shorter waiting times, shorter hospitalization periods, and quicker surgery access.^[9] Similarly, Passalent *et al.*'s reported shorter waiting times in privatized settings, indicating improved access.^[21]

Conversely, Dahlgren,^[12] Davari *et al.*,^[14] and Waitzkin *et al.*^[16] reported negative impact on this dimension. They emphasized that privatization compromises healthcare access and overall care quality, especially for vulnerable populations. In addition, Dahlgren's assessment of healthcare reforms in Sweden found a connection between privatization and increased healthcare access inequality.^[12] Similarly, Basu *et al.* found reduced equitable access in privatized healthcare systems, particularly for marginalized populations.^[20] These findings suggest that privatization may not consistently align with the goal of achieving equitable healthcare access and outcomes.

Nevertheless, Yip and Hsiao's study in China offers a nuanced perspective, emphasizing the link between higher GDP and enhanced healthcare access in privatized systems without explicitly endorsing or opposing privatization. Instead, the study advocates for a multifaceted approach, including improved public hospital accountability, enhanced care coordination, and the implementation of

Table 1: Characteristics of the included studies (N=11)

Study	Year	Objectives	Settings	Study design	Quality rating
Al-Jazaeri <i>et al.</i> ^[9]	2017	To assess the difference after cholecystectomy surgery within private and public healthcare facilities in Saudi Arabia	University hospital (Department of Surgery, College of Medicine, King Saud University) in Riyadh, Saudi Arabia	Cross-sectional study	Fair
Alkhamis <i>et al.</i> ^[10]	2017	To investigate the personal and workplace characteristics of uninsured expatriate males in Saudi Arabia	Male expatriate employees in businesses/companies in Riyadh, Saudi Arabia	Cross-sectional study	Fair
Yip and Hsiao ^[11]	2014	To assess the effects of privatization on all healthcare facilities in China	Healthcare facilities in China	Database analysis	Fair
Dahlgren ^[12]	2014	Examining the main effect of the first two phases of health-care reform in Sweden	Private hospitals in Sweden	Comparative study (before and after privatization)	Good
Villa and Kane ^[13]	2013	To analyze the impact of privatization on different dimensions: Efficiency, profitability and benefits to the community	Privatized hospitals in three American states (California, Florida, and Massachusetts)	Longitudinal analysis	Good
Davari <i>et al.</i> ^[14]	2012	To evaluate issues related to financing of healthcare system and relevant government policies in Iran	Public hospitals in Iran	Interview-based, qualitative study	Fair
Tiemann and Schreyögg ^[15]	2012	To assess technical efficacy and changes within hospitals after privatization	Privatized hospitals in Germany	Observational, prospective analysis	Good
Waitzkin <i>et al.</i> ^[16]	2007	To provide an empirical response to the World Bank and Wharton School's proposals regarding the privatization of health services in less developed countries	Private hospitals in the United States, Argentina, Chile, and Mexico	Multi-method study design	Good
Maarse ^[17]	2006	To evaluate the effects of privatization on public and private healthcare setups	The public-private mix in health care in eight European countries: Germany, France, Belgium, Spain, Italy, Sweden, Hungary, and The Netherlands	Longitudinal analysis	Good
Ovretveit ^[18]	2003	To evaluate the impact of privatization and private healthcare in Nordic countries, specifically in terms of healthcare financing and service quality	The raw data were provided by statistical sources in each country. The Nordic countries include Denmark, Norway, Sweden, Finland, Iceland, the Faroe Islands, Greenland, and Åland Islands	Multi-methods, survey-based quantitative study	Fair
Shen ^[19]	2003	To evaluate the effects of ownership conversion on hospital financial conditions, administration, staffing, capacity, and unprofitable care	The study utilized hospital-level data from the American Hospital Association Annual Surveys, Medicare hospital cost reports, and Frank Sloan of Duke University in the United States	Cross-sectional study	Fair

performance-based purchasing, as strategies to establish a cost-effective and high-quality healthcare system.^[11]

These diverse findings underscore the need for a nuanced examination of access, considering factors like affordability, geographic distribution, and the needs of vulnerable populations.

Cost-effectiveness of privatization

Three studies (Alkhamis, *et al.*,^[10] Villa and Kane,^[13] and Tiemann and Schreyögg^[15]) highlight the potential cost savings, shorter hospitalization durations, and efficiency gains associated with healthcare privatization. This supports the argument that converting public hospitals to private ownership can improve the sustainability of universal health coverage systems. Correspondingly, Wallin reported that privatization was associated with lower administrative costs in healthcare systems.^[22] These findings suggest that privatization may help optimize resource allocation and control expenses.

However, Shen's study has raised concerns about the cost-effectiveness of privatization, as privatized

hospitals faced lower staffing levels and budgetary challenges compared with non-privatized hospitals.^[19] Similarly, an article by Rao indicated that privatization did not consistently lead to cost savings and efficiency improvements in healthcare delivery.^[23] Thus, the cost-effectiveness of privatization may vary depending on the specific healthcare context, market structure, and regulatory framework.

Economic context

The majority of studies conducted in developed countries,^[24] particularly in Europe, express opposition to privatizing the health sector due to adverse consequences such as inequity, reduced quality, and limited access to care,^[12,17,18] whereas developing countries, exemplified by Saudi Arabia,^[9,10] tend to support privatization, as it increases efficiency and improves healthcare quality. In addition, economic factors likely influence this dichotomy, as Saudi Arabia perceives privatization as an avenue to attract investment, diversify their economy, and introduce innovative practices in healthcare.^[10] The economic context, thus, plays a pivotal role in shaping the differing attitudes toward healthcare privatization in developed and developing regions.

Table 2: Summary of the included studies (N=11)

Study	Results	Comments	Country classification by the United Nations	Conclusion
Al-Jazaeri et al. ^[9]	Public sector hospitals have shorter symptom duration but longer waiting times and hospital stays compared to private hospitals, suggesting private hospitals have quicker surgery access	The study's title and objective are not matched, and it failed to identify financial issues among participants or compare public and private hospitals to interpret results	Saudi Arabia: Developing country (high-income)	Favor privatization
Alkhamis et al. ^[10]	Private hospitals had shorter hospitalization durations (1 day) compared to public hospitals (2 days), and patients in private hospitals were more likely to be admitted on the same day of diagnosis	Private provider's samples were from a specific medical facility, not representing the entire uninsured expatriate population, and it did not compare two similar populations (private and public hospitals), making interpretation challenging	Saudi Arabia: Developing country (high-income)	Favor privatization
Yip and Hsiao ^[11]	Countries with higher gross domestic product, such as Taiwan, Hong Kong, Singapore, and Japan, had better access to healthcare services. Additionally, it was observed that some facilities in China adopted stringent policies, like "hospital zero drug policies," which helped maintain safety and high-quality care	The study does not explicitly take a position either in favor of or against privatization. Instead, it emphasizes that no single policy would provide a magic solution to improving China's healthcare system. It suggests measures like improved public hospital accountability, better care coordination, and performance-based purchasing to achieve a cost-effective and high-quality system	China: Developing country (upper middle income)	Neutral toward privatization
Dahlgren ^[12]	Privatization has led to increased inequity in healthcare access, shifting patient care priorities, and compromising accessibility and quality of care, especially for patients with minor health issues compared to those with multiple health problems	The findings might not be directly applicable to healthcare systems in other countries with different contexts. The study did not examine the long-term impacts of privatization, and the observed effects on equity and quality may have evolved over time	Sweden: Developed country (high-income)	Oppose privatization
Villa and Kane ^[13]	The study revealed that the conversion of public hospitals to private ownership resulted in a slight decrease in overall profitability, with a total margin difference of -0.18%. Yet, the conversion resulted in a 6.6% increase in the operating margin, indicating enhanced efficiency and profitability	The study, primarily focusing on the US context, may not be applicable to other countries and may not explore potential consequences for access to care, service quality, or equity	US: Developed country (high-income)	Favor privatization
Davari et al. ^[14]	Privatization led to a decrease in healthcare services utilization, limited financial resources, and negative impacts on healthcare outcomes due to under-the-table fees and informal payments	The study, primarily focusing on Iran, provides valuable insights into the potential drawbacks of healthcare privatization in Iran, but its findings may not be universally applicable due to variations in healthcare structures and policies	Iran: Developing country (upper middle income)	Oppose privatization
Tiemann and Schreyögg ^[15]	Privatized hospitals showed significant improvements in efficiency metrics (2.9%–4.9%), including changes in bed numbers, efficiency of nonprofit and profit-based hospitals, and bed allocation, with for-profit hospitals showing increased efficiency and patient satisfaction	The study's findings are limited to a specific context and may not be applicable to other healthcare systems. It primarily focused on efficiency measures and did not address potential impacts of privatization on healthcare quality, access, or costs	Germany: Developed country (high-income)	Favor privatization
Waitzkin et al. ^[16]	The results of the study indicated that the benefits of privatization, as advocated by these institutions, were less pronounced than expected. Access to healthcare did not substantially improve, especially for vulnerable populations, despite the push for privatization	The study's limitations include its focus on specific countries and contexts, and its reliance on World Bank and Wharton School proposals, suggesting a need for further research to understand the effects of health service privatization in less developed countries	Developed: US (high-income) Developing: Chile (high-income) Mexico and Argentina (upper middle income)	Oppose privatization
Maarse ^[17]	The study found that privatization negatively impacts healthcare quality and equality, especially for financially dependent populations, and may worsen disparities in access and care	The study's findings, based on specific policies and approaches in eight European countries, may vary in their impact on privatization and healthcare systems, highlighting potential regional variations	All developed countries: Germany, France, Belgium, Spain, Italy, Sweden, and the Netherlands (high-income) But Hungary (upper middle income)	Oppose privatization

Contd...

Table 2: Contd...

Study	Results	Comments	Country classification by the United Nations	Conclusion
Ovretveit ^[18]	Privatization led to increased patient service fees and a decline in healthcare quality, with insured patients receiving lower care than private patients, potentially causing negative consequences	The study's findings may not be universally applicable due to its specificity to the Nordic context and its potential influence on other regions with different healthcare systems and policies	Developed: Denmark, Norway, Sweden, Finland, Iceland (high-income) Developing: Faroe Islands, Greenland, and Åland Islands (high-income)	Oppose privatization
Shen ^[19]	Privatized hospitals faced lower staffing levels and budgetary challenges compared to non-privatized hospitals	The study's limitations include unaddressed confounding variables and potential universal applicability due to the potential varying impact of ownership conversions on hospital performance	US: Developed country (high-income)	Oppose privatization

Limitations

This systematic review has several limitations that should be considered. Firstly, the review only includes studies published in English, which might introduce language bias, potentially excluding relevant research in other languages. Secondly, the included studies exhibited heterogeneity in methodology and study design, which could impact the comparability of results across different contexts. Finally, the studies found in the literature were mainly conducted in high-income or upper middle-income countries, which could have limited the generalizability of this review. Therefore, it is essential to acknowledge that the conclusions of this review represent a specific point in time and might not capture the most recent developments in healthcare privatization.

CONCLUSION

The findings of this systematic review underscore the complexity and diversity of the privatization debate in healthcare. While some studies conducted in developing countries, exemplified by Saudi Arabia, provide evidence supporting the potential benefits of privatization in terms of efficiency, innovation, and profitability, others, such as those conducted in European countries, emphasize adverse consequences, including inequity, reduced quality, and limited access to care. The variations in findings across different studies highlight the need for a balanced and context-specific assessment of the impact of privatization on healthcare systems. This comprehensive review contributes to a more informed and nuanced understanding of the multifaceted implications of healthcare privatization.

Peer review

This article was peer-reviewed by two independent and anonymous reviewers.

Data availability statement

Data sharing is not applicable for this article, as no new data were created or analyzed.

Author contributions

Conceptualization: T.M.A.; Methodology: A.S.A, I.A.A. and R.T.A.; Data analysis: R.T.A.; Writing—original draft preparation: T.M.A. and I.A.A.; Writing – review and editing: A.S.A. and R.T.A.; Supervision: T.M.A.

All authors have read and agreed to the published version of the manuscript.

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Conflicts of interest

There are no conflicts of interest.

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Appendix A: Electronic search terms

Database	PubMed
Search terms	("finance "[MeSH Terms] OR "invest"[MeSH Terms] OR "national"[MeSH Terms] OR "private"[MeSH Terms] AND ("healthcare "[MeSH Terms]
Limitations	Title/Abstract and MeSH Terms as noted above. Years selected (2000 – 2023).
Results	175
Database	Google Scholar
Search terms	"finance " OR "invest" OR "national" OR "private" OR "privatization" AND "healthcare"
Limitations	Years selected (2000–2023)
Results	200
Database	Scopus
Search terms	"finance " OR "invest" OR "national" OR "private" OR "privatization" AND "healthcare" OR "system"
Limitations	Abstract/Title/Keyword. Years selected (2000–2023)
Results	25