

## Women's leadership in the healthcare landscape. Original evidence from an innovative narrative review of the literature: the female-led study

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### Abstract

The "great man" theory inherently excludes women, as it traditionally focuses on leadership features associated with men. In recent years, the healthcare sector has experienced a growing presence of women in leadership roles; however, although female health workers significantly outnumber men, the number of women leaders remains lower than that of men. This article seeks to investigate potential differences between male and female leadership, identify the winning characteristics of female leadership, and examine the barriers and obstacles that may preclude women's access to leadership positions. A review of existing reviews available on PubMed was conducted using specific search queries. The authors analyzed the selected articles according to specific inclusion and exclusion criteria, using the PICO methodology. Out of 967 articles, 18 met the inclusion criteria. The most frequently identified characteristics of female leadership included a democratic and non-individualistic style, strong communication skills, and empathy. The most common obstacles to the advancement of female leadership included lower compensation, persistent stereotypes and prejudices, and insufficient support from institutions in addressing the gender gap. Academic studies confirm that women tend to adopt a transformational leadership style, in contrast to the more autocratic and assertive male leadership. Further research on female leadership is essential for monitoring progress and fostering actions that allow women to thrive in top leadership positions.

**Key words:** gender, women's leadership, healthcare professionals, review, PICO strategy.

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### Introduction

In 2019, the World Health Organization disclosed that women still strive to play a significant role in scientific fields, as they constitute only 12% of the members of national scientific academies at the global level. Although they make for 70% of the healthcare labor force, only 25% have secured leadership roles in healthcare.<sup>1</sup> Gender-based obstacles and numerous inequalities interfere with

women's capability to fill leadership positions, restrict diverse viewpoints, and prevent the inclusion of women's evaluations in the decision-making. Female leaders approve investments in educational and health fields more frequently than male leaders and pay more attention to the necessities of women, minors, and marginalized communities.<sup>1</sup> This issue emphasizes the urgent necessity for more female leaders in healthcare, since their unique perspectives and expertise can significantly enhance decision-making processes.

## The leader and key qualities

Brown describes a leader as “a person who can influence others in the group”.<sup>2</sup> Effective leaders are open and sincere when communicating and motivate their teams by constantly recalling mutual goals and expectations. True leadership entails not only accomplishing outstanding professional outcomes but also encouraging high morale, determination, and engagement among team members.<sup>3</sup> This emotional side of the leader is both the original essence and the fundamental element of leadership. In any time and culture, leaders offer protection and security in uncertain and dangerous periods because of their enthusiastic and collegial approach; otherwise, resentment and anxiety can emerge and lead to disorientation. A thorough analysis of operative working groups shows that leaders play a crucial role in defining shared emotions.<sup>2</sup> Brown also defines leadership as “a form of influence marked by the ability to elicit voluntary consensus and motivated acceptance from individuals towards group or organizational objectives”. This definition stresses the relevance of persuasion and influence. Modern leadership theories point out the quality of the relationship between leaders and followers, and underline the importance of mutual loyalty and trust, which generates greater employee satisfaction and performance.<sup>4</sup>

## Leadership and gender

The “great man” leadership theory has consistently credited achievements to exceptional men and has, by definition, excluded women. This concept is nowadays perceived as old-fashioned and myopic; however, the persistent view that men are more suited to leadership roles than women remains a problem. In many professional contexts, women face the so-called “glass ceiling”, a term that refers to obstacles and barriers that prevent their admission to positions of greater responsibility.<sup>5</sup> Also, they encounter the “glass cliff”, where they are often selected for higher-risk projects, which expose them to criticism if the project fails. Further, women can be less motivated to pursue high-leadership positions since they face family and caregiving responsibilities and are affected by negative stereotypes associated with female leadership.<sup>6</sup> Gender integration is critical as it results in a positive impact on healthcare and development sectors. As an example, academic literature identified several reasons for the gender disparity in anesthesiology leadership and faculty positions. This disparity is due to unsupportive work environments, lack of mentorship, personal choices, childcare responsibilities, and active discrimination against women.<sup>7</sup> In-depth interviews were administered to 18 medical doctors working in academia across 13 different institutions: 40% of them are convinced that gender discrimination is the primary factor that prevents academic career advancement.<sup>8</sup> Moreover, women are less likely than men to be fully recognized for their academic accomplishments, particularly regarding access to research funding and grants. Evidence shows

**Table 1.** Comparison between female leadership and male leadership.

Female leadership	Male leadership
Transformational leadership	Transactional leadership
Democratic style	Autocratic style
Altruistic	Individualistic
Communication and empathy	Decision-making hierarchy

that women are often required to publish significantly more work—such as several additional articles in high-impact journals or many more papers in reputable field-specific journals—in order to be considered equally productive. Discrimination also emerges in evaluation and recruitment procedures. For example, letters of recommendation written for women tend to be shorter and focus more on stereotypical personal traits rather than on concrete professional achievements. As a result, even when they have comparable qualifications, women are frequently viewed as less capable across various academic disciplines.<sup>9</sup>

Gender-based conventional perceptions about leadership styles also generate obstacles.<sup>10</sup> Men, in most cases, display a transactional leadership focused on hierarchy, sanctions, and negotiation of benefits, and favor an autocratic style based on assertiveness. Conversely, women tend towards transformational leadership, which can reshape the value framework and the motivation of team members through persuasion and attention to individual needs. Women are inclined to stress empathy, communication, and team cooperation.<sup>11</sup> Women favor the development of individual potential, embrace team members, take risks, transform project objectives into team efforts, and pay attention to the well-being of their members. In this way, they earn respect, gain personal recognition, reduce social distance, and strengthen the perception of accessibility to decision-making positions. These attributes encourage a sense of belonging and well-being in organizations, and women leaders are perceived as respected and approachable.<sup>12</sup> Table 1 shows the difference between female and male leadership.

## Study objectives

This paper accomplishes a complete literature review to examine female leadership by addressing three research questions: i) What differences emerge between female and male leadership styles?; ii) What are the stereotypes in this context, and why are women sometimes negatively labeled as “alpha”?; iii) What obstacles and barriers persist in achieving leadership positions, and what actions can address these challenges?

## Rationale

The primary aim of the Female-led study is to examine the differences, stereotypes, outcomes, and effectiveness of female leadership in comparison to male leadership, as well as to propose strategies for improvement. Additionally, a secondary aim is to provide narrative literature review-based and actionable recommendations for policymakers, health institutions, and medical training programs.

## Materials and Methods

This review has not been registered on the PROSPERO portal because it is not intended to be a meta-analysis or a systematic review. However, following the PRISMA methodology (despite not being a systematic review),<sup>13,14</sup> an analysis was accomplished based on a peer-reviewed literature search on PubMed. Using specific search strings listed below, the key articles were identified and analyzed addressing the research questions formulated earlier. These questions were developed using the PICO model:

- Population (P): women
- Intervention (I): overcoming stereotypes and biases
- Comparison (C): men
- Outcome (O): promoting female leadership

The query research used, with keywords, both free and MeSH, is: (Female leadership) AND ((bias) OR (stereotype) OR (academic) OR (gender))

### Inclusion and exclusion criteria

Inclusion criteria are: i) presence in a peer reviewed journal in PubMed database; ii) only “article” and “review” type of publication is admitted; iii) publication data in the last 5 years (2019-2024): we selected a 5-year period to capture the current reality, particularly considering the impact of COVID-19 pandemic, rather than accomplishing a longitudinal study on the evolution of the research topic; iv) free full text availability; v) publications written in English.

The articles that did not meet the inclusion criteria were excluded.

## Results

As shown in Figure 1, applying the filters resulted in the identification of 6717 articles. The “last 5 years” filter retrieved 4038 articles, while the “free full-text” filter collected 2287 articles. After screening titles with each author analyzing independently 9 articles in alphabetic order, 126 articles remained. Employing the same methodology to screen abstracts resulted in the selection of 80 articles. The full-text review, following the same review process, excluded 62 articles. The remaining 18 articles were used for the qualitative synthesis, as shown in Table 2 below.

## Discussion

First, it is necessary to contextualize the articles within their specific realities, as certain aspects – such as ethnicity, social class, national religion, LGBTQ+ (Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, Plus) integration, and other socioeconomic characteristics – may act as confounding factors. However, taking into account previous reviews should contribute to minimizing the impact of these aspects. Regarding the first question, a review of

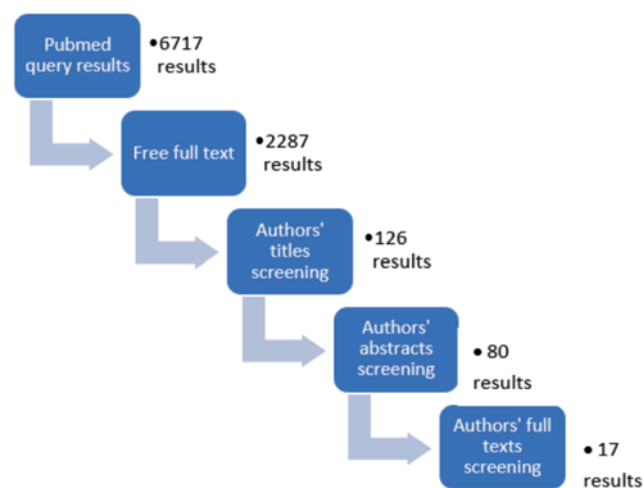


Figure 1. Prisma methodology.

several articles reveals significant disparities between female and male leadership in the world of academia. According to literature on women academics in the United States,<sup>9</sup> women are perceived as less competent than men, receive lower teaching evaluation scores, fewer citations, and have their publications regarded as lower quality than those authored by men. These disadvantages extend to application and candidate review processes. Recommendation letters for women tend to be more concise, focus on gender-specific attributes, and encompass private lifestyle details. Even if qualifications and expertise between women and men are equivalent, women are still rated as inferior. These biases directly affect women’s tenure, promotion, and retention in academia, and promote environments incompatible with family life.

In response, the University of California, Davis, started a campaign promoting flexibility in academic culture and raising awareness of family-friendly policies such as parental leave, tenure clock extensions, and part-time contracts. This initiative fostered cultural change, introducing outstanding work-life balance, reducing gendered language in recommendation letters, and achieving gender parity in assistant professor hiring. A second initiative boosted the recruitment and advancement of women faculty compared to other University of California campuses. It included equity counselling systems, workshops, gender analysis, and equity awards.

Narrative literature review-based policies to increase women’s hiring for academic positions should address various challenges. To start with, many young women enter academia during their reproductive years, and between earning their Ph.D. and obtaining tenure, they often delay milestones such as marriage and childbirth. A survey of over 4000 faculty from 507 academic institutions found that women are more likely than men to remain single and delay starting families before achieving tenure, with fewer children on average. Another study found that after having their first child, 43% of women, compared to 23% of men, abandoned full-time work, with significantly higher dropout rates among faculty with children.<sup>15</sup> Secondly, regardless of family and caregiving commitments, women and men share professional aspirations in research productivity, clinical care, and teaching.<sup>16</sup> However, women often emphasize collaborative and community-oriented values consistently to gender expectations, such as mentorship, teaching, and professional flexibility.<sup>17</sup> At the same time, men increasingly focus on research and clinical outcomes, leading to greater recognition. Conversely, women make career choices to remain engaged in these collaborative activities.<sup>18</sup>

In addressing the second question, research highlights that fields like general medicine and pediatrics already attract predominantly female workforces, contrary to fields such as surgery, which have fewer women. Gender stereotypes probably contribute to these disparities.<sup>19,20</sup> Stereotypes, whether positive or negative, form early in life through exposure to family attitudes, media, and cultural norms.<sup>21</sup> Women and men can be stereotyped in relationship on traditional gender roles, and generalized images can be formed that many people believe represent a typical man or woman. Gender roles are described using terms like “agentic” for authoritative, assertive, and dominant men, and “communal” for emotional, nurturing, and collaborative women.<sup>14</sup>

Women in leadership roles often display traits traditionally attributed to men and are referred to as “alpha women”. These individuals are portrayed as strong, extroverted, ambitious, assertive, and competitive, and frequently hold significant leadership positions. Maslow’s 1939 study Dominance, Personality, and Social Behavior described dominant women as self-confi-

**Table 2.** Qualitative summary of reviewed articles.

Author	Title	Journal	Type of article	Year of publication	Main findings
Cardel <i>et al.</i>	Turning chutes into ladders for women faculty: a review and roadmap for equity in academia (9)	Journal of Women's Health	Review	2020, May	Achieving equity in an academic world dominated by prejudice and stereotypes is a complex but achievable challenge.
Sumra	Masculinity, femininity, and leadership: taking a closer look at the alpha female (16)	Plos One	Article	2019, April	The personality traits of women leaders.
Victoria and Kline-Fath	Women in pediatric radiology: a call for gender equity (17)	Pediatrics Radiology	Article	2022, August	Progress towards equity between women and men emerges compared to decades ago.
Kubik-Huch <i>et al.</i>	Women in radiology: gender diversity is not a metric-it is a tool for excellence (18)	European Radiology	Article	2020, March	Gender diversity improves organizational effectiveness.
Winkle <i>et al.</i>	The role of gender in careers in medicine: a systematic review and thematic synthesis of qualitative literature (15)	Journal of General Internal Medicine	Review	2021, August	Despite significant representation by women, assumptions based on outdated stereotypes associated with men still dominate medicine.
Critchley <i>et al.</i>	The female medical workforce (27)	Anesthesia	Article	2021, April	The reasons for the under-representation of women in some medical specialties and medical leadership positions are multifactorial, but gender stereotypes and biases can play a significant role.
Chung <i>et al.</i>	A scoping review on resources, tools, and programs to support women's leadership in global health: what is available, what works, and how do we know? (1)	Annals of Global Health	Review	2023, April	Including appropriate and inclusive goals and needs assessments is a pathway to begin creating effective and equitable interventions to increase women's leadership in global health and overcome barriers that limit women leaders in global health.
Gurung <i>et al.</i>	Gender inequality in the global mental health research workforce: a research authorship scoping review and qualitative study in Nepal (8)	British Medical Journal Global Health	Review	2021, December	Structural barriers intensify the gender gap in health research.
Hastie <i>et al.</i>	Misconceptions about women in leadership in academic medicine (23)	Canadian Journal of Anesthesia	Article	2023, June	Institutions must create supportive environments and fair opportunities.
Bosco <i>et al.</i>	Women in anesthesia: a scoping review (12)	British Journal of Anesthesia	Review	2020, March	Gender discrimination is the main factor responsible for academic career advancement.
Gonzalez <i>et al.</i>	Gender distribution in United States anesthesiology residency program directors: trends and implications (24)	British Journal of Anesthesia	Review	2020, March	Recruiting more women in anesthesiology, together with interventions to recruit female academic faculty members, reduces the effects of gender bias on recruitment, promotion, and departmental culture.
Ryan and Morgenroth	Why we should stop trying to fix women: how context shapes and constrains women's career trajectories (22)	Annual Review of Psychology	Article	2024, January	The most successful strategy would encourage organizations to give all women something extra to support them.
Tricco <i>et al.</i>	Global evidence of gender equity in academic health research: a scoping review (6)	BMJ Open	Review	2023, February	There is a need to identify interventions to promote gender equality at all levels of organisations.
Caywood and Darmstadt	Gender mainstreaming at 25 years toward an inclusive, collaborative, and structured research agenda (7)	Journal of Global Health	Article	2024, January	Inclusive, collaborative and structured research can better harness academia to assist practitioners and advocates in realizing the relevance of gender mainstreaming and the potential for impact in the health and development sectors.
Schwartz <i>et al.</i>	Does sponsorship promote equity in career advancement in academic medicine? (5)	Journal of General Internal Medicine	Article	2024, February	Leaders must strive to create a culture of sponsorship relevant to career advancement in medicine.
Khounsarian <i>et al.</i>	A trend, analysis, and solution on women's representation in diagnostic radiology in North America a narrative review (25)	Clinical Imaging	Review	2024, May	A more diverse and representative discipline of radiology contributes to better patient care and satisfaction.
Bellini <i>et al.</i>	Changing the norm towards gender equity in surgery the women in surgery working group of the Association of Surgeons of Great Britain and Ireland's perspective (3)	Journal of the Royal Society of Medicine	Article	2019, August	A diverse and inclusive environment should be favored.

dent, balanced, independent, and rarely embarrassed or shy. His research was based on interviews with 130 women and 15 men aged between 20 and 28. The women belonged to the middle class, attended university, 75% were married, 75% Protestant, 20% Jewish, and 5% Catholic. Maslow (1939) pointed out that someone who displayed high dominant power would be a great leader, although not all women would become one. According to Maslow, dominant women showed self-confidence, greater balance, independence, rarely embarrassed, awkward, shy, or fearful as compared to non-dominant women. They preferred to be treated as a “person” rather than a “woman”, lacked feelings of inferiority, and generally made no concessions associated with being inferior, weak, and in need of special attention.<sup>16</sup>

As a consequence, organizations should refrain from recruiting or evaluating performance based on gender stereotypes or traditional “ideal worker” norms, as they are constructed on male standards. Rather, they should reconsider the skills of the “ideal worker”, challenge the socio-cultural barriers that women encounter, and implement gender-sensitive approaches.<sup>8</sup> Organizations should encourage gender equity,<sup>22</sup> deconstruct systemic disadvantages, and promote female leadership by designing inclusive environments that value multifaceted leadership styles. Conducive work environments should be promoted where resources and opportunities are shared equitably, strengths are recognized and improved, and differences in leadership and management styles are valued.<sup>23</sup> In this regard, an encouraging movement toward gender equality has been positively evolving over the past 15 years.<sup>24,25</sup>

In response to the third question, obstacles for women to leadership positions are emphasized. The main problem for women appears to be the limited time available to them. Conducting research, publishing in academic journals, and raising funding requires time, which men often accomplish with extra work hours. Women, instead, typically have household and caregiving duties, which leave them less time for career progress.<sup>22</sup> In addition to time constraints, numerous factors contribute to salary disparities. When women have children, they often reduce their working hours, having a negative effect on career progression and income. Minimizing gender inequality needs shifting from expecting individual women to overcome obstacles to addressing structural inequities. Interventions should encompass fair distribution of household duties, inexpensive and available childcare, parental leave, and challenge meritocracy stereotypes.<sup>17</sup> Mentorship can be a key solution to these issues because it can provide women with motivation, assistance, and career development opportunities. Effective mentors, particularly female mentors, offer psychological and social support and encourage career advancement, which may lead to more publications, funding, and career advancements.<sup>18</sup> In addition, sharing stories of successful women is a crucial strategy in inspiring others to chase leadership positions. A growing awareness of the advantages of multifaceted leadership, which includes women in decision-making roles, will reshape professional sceneries, especially in fields that require innovative research and patient care. These success stories function as powerful motivators and encourage more women to get into leadership roles and contribute to different leadership styles.<sup>26,27</sup> Finally, in the post-COVID era, digitalization and changes such as remote work have made it easier for women to exercise their leadership remotely, especially during periods such as pregnancy or maternity.

## Study limitations

This study sets out to compare both articles and reviews that are related to the topic highlighted by the PICO strategy. Although this approach may not be entirely methodologically rigorous due to differences in study design, sample size, and statistical analysis, its impact is limited for two main reasons: i) the collected data are consistent, hence, it is possible to generalize the levels of evidence and the strength of recommendations based on the reviews; ii) this review is a narrative one, not a systematic review or meta-analysis, and it is specifically focused on the healthcare sector.

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## Conclusions

This review of female leadership points out the challenges and obstacles that women encounter in their professions, starting with hiring and promotion processes. Women who overcome gender-based barriers often strive to keep leadership positions, especially when balancing motherhood and work duties. Women leaders are distinguished for a transformational leadership style, which entails inclusive and empathetic management, in contrast to the autocratic and authoritarian approaches of male leaders. Nonetheless, women who get leadership roles often exhibit dominant, assertive, and controlling characteristics, which are traditionally associated with masculine traits.

According to the selected studies, minimizing obstacles and barriers for women requires flexible schedules, mentorship, coaching, and raising awareness. In addition to gender biases and stereotypes, the main obstacle that emerges is the issue of motherhood, which is often underestimated and continues to be responsible for women slowing down or abandoning their professional careers. Organizations should provide mothers with support services, networking opportunities, training programs, and review recruitment and promotion criteria to allow women’s career progress.

Academic studies confirm that women tend to apply a transformational leadership in contrast to the autocratic and assertive male leadership. Women leaders stress listening, participation, and organizational well-being. Refusing women access to leadership roles dissipates human talent and limits perspectives. Research accomplished over the years emphasizes an increasing presence of women in numerous public and private sectors, and their gradual progress in traditionally male-dominated fields. However, leadership roles continue to be preferentially assigned to men. Hence, continued research into female leadership is essential for monitoring progress and fostering actions that advance gender and allow women to prosper in top leadership positions.

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