

Gender Equity in Hospitals: An Italian case study

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Abstract: The topic of gender equity is increasingly cited as a goal of health policy despite the rise in the number of female doctors around the world, and attempts to enhance gender awareness have gained prominence. Recently, initiatives to increase gender awareness have been numerous nevertheless, the topic of gender equity in the medical profession has not been adequately assessed. In order to fill this gap, this paper examines the current state of gender equity literature in hospitals, with a systematic literature review on Scopus, and, then, it focuses on an Italian case study to identify the characteristics that obstacle or support gender equity in terms of salary, career, and professionalism. The finding highlighted some reflections regarding the roles in the Italian hospitals and obstacles to gender equity, such as the stereotyped judgments, as well as shed light on new considerations regarding the actions aimed at managing gender disparity in such working environments. This has important implications for practice in health care organizations and human resource management, which are highlighted in conclusion, together with the limitations and future research avenues.

Keywords: gender equity, pay equity, career equity, Hospitals, Health system

1. Introduction

Daily, women in medicine face barriers that hinder progress toward top roles, facing emerging the grand challenge of gender inequality all over the world (Shannon et al., 2019; Hempenstall et al., 2019). The topic of gender equity is increasingly cited as a goal of health policy (Levy et al., 2020), despite the rise in the number of female doctors around the world (OECD, 2021). As defined by PAHO (2023), gender equity refers to “fairness and justice in the distribution of benefits, power, resources, and responsibilities between women and men. Women and men have different needs, access to, and control over resources. These differences should be addressed in a manner that rectifies the imbalance between the sexes.”. Attempts to enhance gender awareness have gained prominence in the healthcare sector, albeit still today, subtle and overt gender biases affect women physicians (Barnes et al., 2019) and physician leaders (Herzke et al., 2020).

Recently, initiatives to increase gender awareness have been numerous nevertheless, the topic of gender equity in the medical profession has not been adequately assessed (Tricco et al., 2021).

Starting from these considerations, the purpose of this study is to first examine the current state of the literature about gender equity in hospitals in the literature through a systematic literature review on Scopus. Albeit the relevant literature highlighted the relevance of this topic, most of the studies follow a quantitative approach. To fill this gap, this paper focuses on an Italian case study to identify the characteristics that hinder or support gender equity in terms of salary, career, and professionalism. This study, thus, follows a qualitative approach (Yin, 2003, 2012), interviewing a selected number of women medical doctors from a list of hospitals in the South, Central, and North of Italy. Interviews with women medical doctors allow readers to ‘hear’ the ‘voices’ of the women who participated in the study regarding gender equity in Italian hospitals. The finding highlighted some reflections regarding the roles in Italian hospitals and some obstacles to gender equity, such as stereotyped judgments, and shed light on new considerations regarding actions to manage gender disparity in the hospitals.

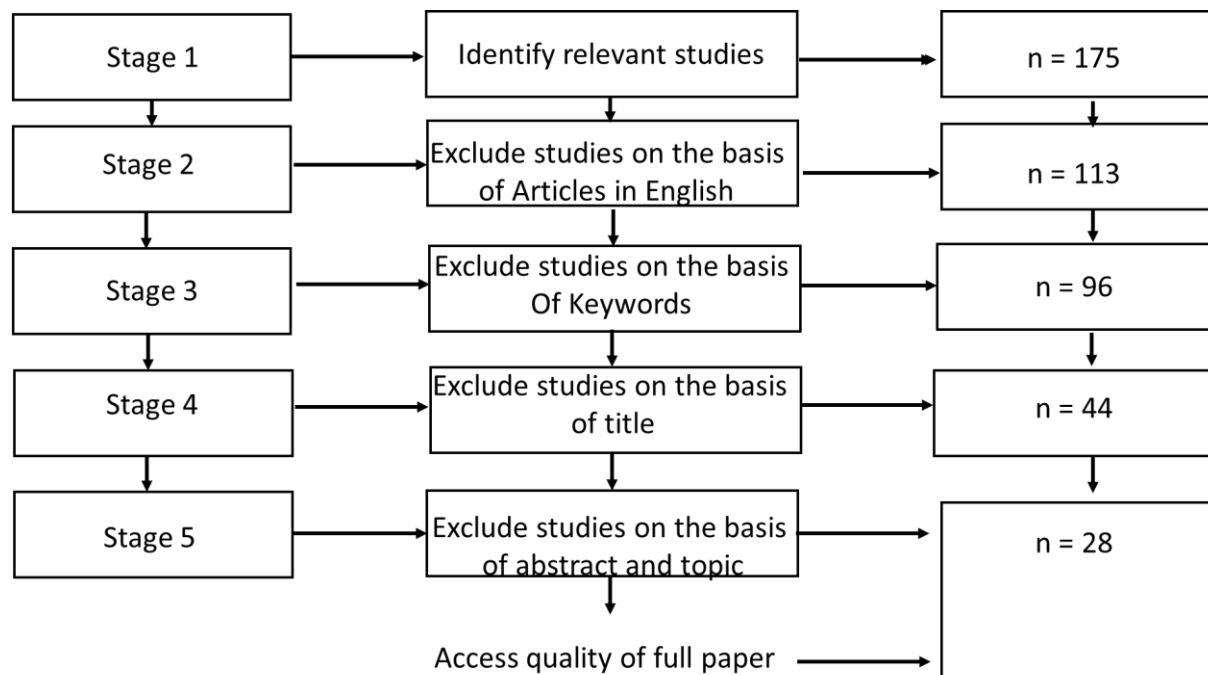
The remainder of this paper is structured as follows: “Literature review: a systematic approach to gender equity in health care” provides a brief overview of the theoretical background based on a systematic approach to examine the current state of the relevant literature regarding the gender equity in the hospitals; “Research design: a qualitative approach” describes the research methodology based on the case study regarding the Italian hospitals’ context; “Results and discussion” provides a synthesis of results and shed light on the obstacles as well opportunities related to the gender equity within hospitals; “Implications, limitations, and future directions for research” finally lists main implications of reflections herein and it also draws main conclusions and directions for future research.

2. Literature review: a systematic approach to gender equity in the medical sector

A systematic examination of the available literature has been developed to comprehend the status of the art of gender equity in the medical sector. The research has been conducted adhering to the guidelines by Ngai and Wat (2002), Kitchenham (2004), Brereton et al. (2007), and Kitchenham et al. (2009) for systematic literature review. Accordingly, a revision protocol has been followed. Then, the inclusion and exclusion criteria were established to reveal significant research for the analyzed topic, followed by the critical evaluation, the

extraction of the data, and the synthesis of the results. The following figure describes in detail the process (Figure 1).

Figure 1: Steps of literature review for analyzing gender equity in the medical sector



Source: Authors' elaboration

The descriptors selected for search are “gender equity” AND “Hospitals” by titles, key words and abstracts without restricting by date or review the entire literature on the topic.

From the initially screening results yielded 175 papers. The articles published in non-academic peer review journals, books, conferences papers, conference proceedings were excluded.

Investigation showed that the scientific production started in 2001 and has totalled 113 papers, all written in “English”. Following this classification, all papers were examined and those that were out of the scope of our study were excluded. This second screening process was based on the analysis of “Keywords”, and the result gave 96 relevant articles using a combination of the following keywords: "Gender equity", "Gender bias", "Gender gap", "Sex Difference", "Organization and Management", "Sex Factors", "Career Mobility", "Career", "Physicians", "Women", "Workforce", "Medical Society", "Medicine", "Equity", "Health Care Personnel", "Gender Identity", "Health Workforce", "Decision Making", "Educational Status", "Gender Inequality", "Skill", "Work-life Balance", "Health Equity".

The third phase of the process, assessed on the basis of title, consisted in identifying suitable articles allowing to focus only on 44 papers. In the fourth screening phase, all the papers were read and only 27 papers were included.

2.1 Descriptive considerations about publications on gender equity in health care

Figure 2 shows the year of journal publication. The first article was published in 2001 by Heru, an American author which studied how promoting gender equity and fair treatment for medical students in Hospitals. In 22 years the number of articles gradually increased: 1 in 2007, 1 in 2010, 1 in 2015, 1 in 2016, 2 in 2017, 1 in 2018, 3 in 2019, 5 in 2020, 5 in 2021, 5 in 2022, 2 in 2023. From 2019 to 2023 the researches in this field are increasing: the 74% of all papers were published during this period.

American (USA), English (UK), and Australian authors mainly focused on research areas such as Medicine, social science, Nursing and Multidisciplinary, even though other areas were concerned. In addition, we classified the articles by research approach in six categories: Conceptual, Historical study, Survey, Experimental, Index analysis, and Qualitative Analysis (see Figure 3). As emerged, the investigation revealed a lot of publications on the gender gap in hospitals but there is a gap in the qualitative research of this topic.

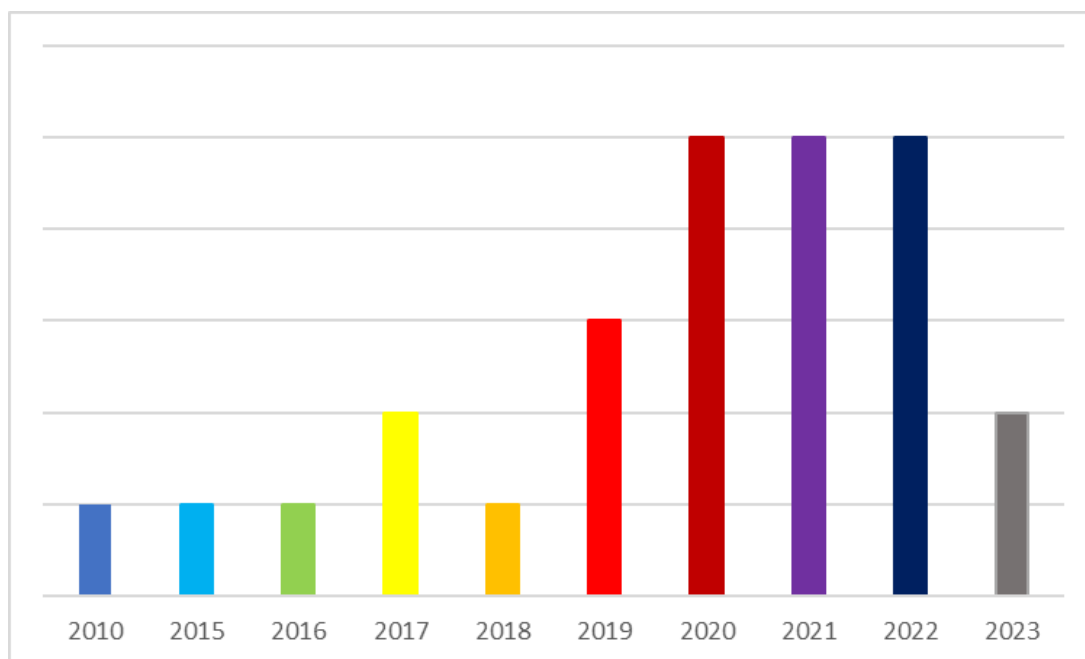


Figure 2: Description of the years sample analysis

Source: Authors' elaboration

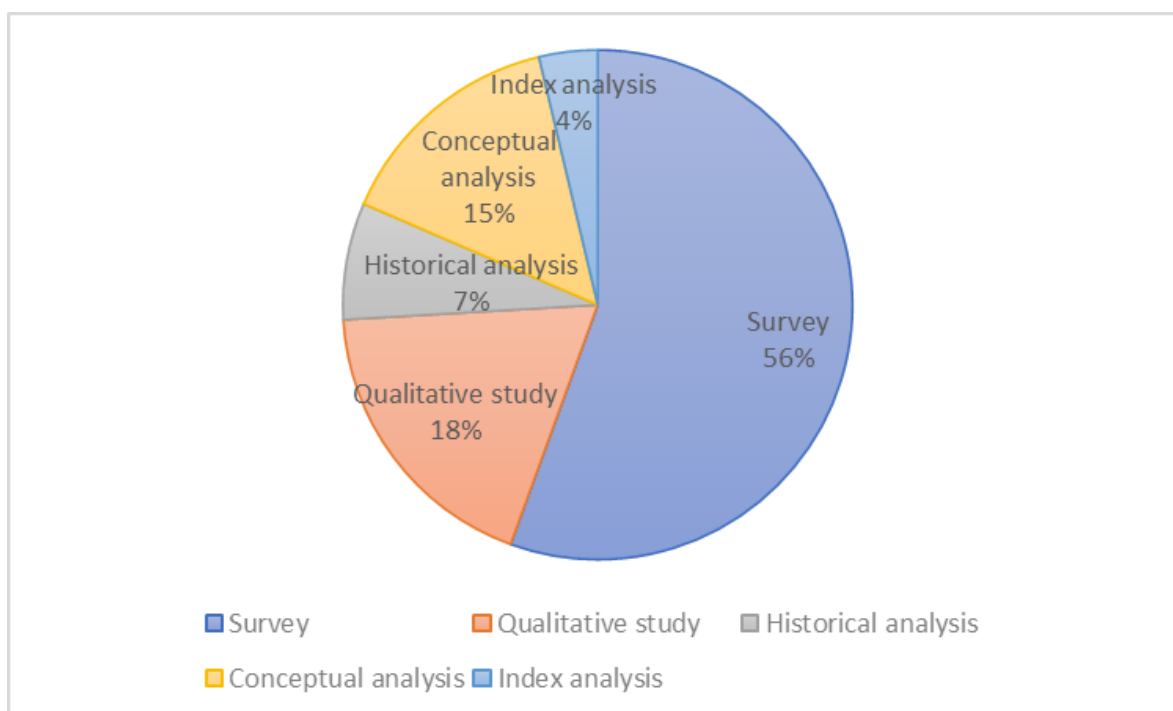


Figure 3: Classification of articles by research approach

Source: Authors' elaboration

2.2 Gender equity in hospitals: still a long way to go

The relevant literature confirmed that, although there has been progress for women in medicine (Joseph et al., 2021), the gender gap is still present in healthcare sector and is rooted in gender biases and gender norms that date back thousands of years (Newman et al. 2020). In such a direction, several authors shed light on the fact that different fields of medicine, including paediatrics (Spector et al., 2019), emergency medicine (Ravioli et al., 2022), and plastic surgery (Moeller et al., 2021), is not leading the way in gender equity.

In particular, several authors highlight an academic gender gap in private and public hospitals (Altin et al., 2023; Le Boedec et al., 2021; Herzke et al., 2020; Lee et al., 2020).

More recent contributions highlight that the majority of women in academic medical centres reported experiencing gender discrimination in the past year (Hennein et al., 2023).

Thus, gender impacts careers and advancements due to gender discrimination and microaggressions (Hong et al., 2022). Imbalances in female career promotion are a key obstacle of gender disparities at the workplace – especially in the academic context (Newman et al., 2019). They may lead to stress and stress-related diseases, including burnout, depression or cardiovascular diseases (Brüggmann and Groneberg, 2017). Also, there have been potential disparities in salary between females and males in the healthcare sector (Wright et al., 2007).

In such a direction, extra effort is required for women for succeeding (Farruggia et al., 2020) and women are more likely to face barriers to career advancement than men do in their workplace (Khader et al., 2022). A major obstacle to gender equity is women doctors with children, who work reduced hours, mainly to enable them to fit in domestic responsibilities, and have difficulty finding an appropriate work-life balance. In the past, women physicians were often not married or, if they were, tended to have fewer children than their male counterparts. If they had families, they often did not specialize, reducing their professional careers or opting for a career break of potentially several years. (Buddeberg-Fischer et al., 2010). In addition, male culture, lack of sponsorship, and lack of mentoring are other key obstacles that women face in hospitals, which highlight the detrimental nature of gender bias in medicine (Hefner et al., 2021).

Women in hospitals often hold proportionately fewer leadership positions than men (Das et al., 2022; Forster et al., 2021; Marshall et al., 2020). Das et al. (2022) pointed out, specifically, that women leaders in hospitals were more likely to have received additional academic degrees (e.g. MBA, MPH) than their male counterparts.

However, academic medicine should foster and reward rather than dismiss women leaders' sense of purpose or commitment to make positive changes in their departments (Hobgood and Draucker, 2022).

Thus, it is fundamental to create, maintain, and support physician women's groups which can be useful to advance women physicians in academic medicine worldwide (Ibrahim et al., 2018), create programs for supporting gender equity already in medical schools (Carr et al., 2017), in order to improve the climate of academic medicine for women which is modest (Carr et al., 2015). Accordingly, gender equity can be achieved with special career-support measures, such as mentoring programs, role models, flexitime, and flexible career structures in academic medical centres (Buddeberg-Fischer et al., 2010). New opportunities lie in the leaders' planification for an intentional path forward, using a systematic process, metrics, and strategies unique to their own organizations to overcome barriers to an equitable and safe work environment for women, focusing on ethical principles and behavior when it comes to addressing workforce gender disparities for women in medicine (Silver, 2019). In this sense, career development programs, concurrent with strategic, intentional support of institutional leaders, are necessary to achieve gender equity and diversity inclusion (Helitzer et al., 2016).

3. Research design: a qualitative approach

In order to investigate gender equity within hospitals, this study aims to conduct a preliminary investigation that follows the case study approach.

According to Yin (2003), the case study is an empirical investigation that places real phenomena at the centre of analysis and seeks to observe them in their uniqueness. Case studies have many strengths represented by the depth of analysis, high conceptual validity, understanding of context and process, and finally, the possibility of promoting new hypotheses and new research questions (Yin, 2012). A case study approach, in fact, can help in investigating in-depth the dynamics in a complex context from a particular standpoint (Eisenhardt, 1989; Yin, 1994; Tellis, 1997). This methodology can be particularly suitable for investigating, as in this case, the phenomena which refer to multi-dimensional constructs that are not well defined semantically in all their shades of meaning in the extant research. This method, thus, was selected as the most appropriate to understand the 'lived experience' of women within hospitals and to appreciate what these women understood of their own work and career development. Other researchers have noted that this method of data collection is particularly appropriate to elicit rich data from female interview subjects (Cooper, 2012; Maynes et al., 2008; Reinharz, 1992).

The Italian context concerning the hospitals has been selected for the analysis due to the particular complexity. Notably, Italy is still far behind other European countries in female employability, and the gender gap is very

marked (Rome Business School, 2023). Specifically, in Italian hospitals persist – with the exception of some notable realities (HSR, 2022) – gender disparities in retributions and career advancement (Gaiaschi, 2018).

It was performed a qualitative approach, drawing from a sample of 8 individual interviews. This work seeks to allow readers to ‘hear’ the ‘voices’ of the women who participated in the study, via direct quotation from (anonymized) interviews. The basic scheme of the interviews administered has been defined by enucleating and adapting the key concepts related to gender equity that emerged from the literature by means of three blocks of open-ended questions (Table 1).

In detail, the semi-structured interviews were conducted with medical doctors from the Italian hospital territory. Specifically, the selected medical doctors are part of hospitals, respectively 3 in the northern area, 3 in the southern area, and 2 in the central area of the Italian territory. Table 2 synthesizes the data related to the respondents’ socio-demographic features.

We obtained a list of full-time female medical doctors, and a member of the research team sent email invitations describing the study to potential participants. To maximize the response rate, an email reminder was sent. We also employed a snowball sampling strategy, wherein participating doctors were asked to support recruitment by identifying other members, related to other hospitals, who might be willing to be interviewed (Pattani et al., 2018). In a time span of six months (from February 2022 to July 2022), two researchers examined the key informants through online meetings due to the pandemic limitations and geographic distances. The interviews lasted an average of 60 minutes and were composed of open-ended questions. The interview protocols were sent in advance to the respondents to support the respondents to better collect their thoughts. During every interview, the main aims of the research projects were presented and discussed with each key informant. Secondly, the researchers proposed questions regarding the research topic. However, albeit the researcher followed the established guide of the interviews, the experts have been encouraged to interact. *The interviews were transcribed by notes and recorded to guarantee a more consistent transcription (Creswell, 2012).* The interviews protocols were transcribed and two-pass process were adopted for data verification. Additional data from the websites of the hospitals and reports were used in order to form a concrete view about the issue of gender gap within Italian hospitals in recent years (Flick, 2018).

After, the collected data were analysed by the two authors, who, at first, to avoid a possible mutual influence, acted separately, interpreting the answers based on their knowledge and experience background. Subsequently, the comparison between the authors became necessary, as well as appropriate, to better investigate the gender equity within hospitals. The comparison revealed uniformity in the interpretation of the information extrapolated from the interviews, and this aspect underlines the coherence of the research design concerning the link between the objective pursued and the results obtained.

Table 1: Semi-structured interview protocol

Questions	Concept
<ul style="list-style-type: none"> • Do you think that although women are increasingly present within healthcare, are they concentrated in specific departments? If so, which ones? • Do you think that a gender pay gap is present for the same jobs or for jobs of the same level? 	Composition of the structure and the pay gap
<ul style="list-style-type: none"> • What obstacles, if any, did you encounter during your career path, and what resources did you use to make it to the present? • Did the choice to "get ahead" affect the family aspect? • Do you think there is a "glass ceiling," that is, a barrier that women encounter when they try to reach leadership positions? • Do you think stereotypes are still present in women's leadership roles? For example, do you think women receive more scrutiny than men in equal role? 	Gender obstacles and stereotyped judgments

Questions	Concept
<ul style="list-style-type: none"> Believes that companies with more women employed in roles management or with a greater female presence on the board, have better performance? What do you think are the skills of female leadership? What do you think are the obstacles to the advancement of women in healthcare? Finally, could you suggest actions that could be implemented to eliminate the gender disparity? 	Performance considerations and actions aimed at managing gender disparity

Source: Authors' elaboration

Table 2: Respondents' socio-demographic features

Category	Feature	Numerosity	Percentage
Role	<i>Resident</i>	2	25%
	<i>Specialized</i>	5	62,5%
	<i>Consultant</i>	1	12,5%
Age	<i>26 – 35</i>	2	25%
	<i>36 – 45</i>	2	25%
	<i>46 – 55</i>	3	37,5%
	<i>55 +</i>	1	12,5%
Education	<i>Master degree</i>	5	62,5%
	<i>Master's degree and PhD</i>	1	12,5%
	<i>Master's degree and other</i>	2	25%

Source: Authors' elaboration

4. Results and discussion

The respondents highlighted several aspects related to gender equity within hospitals, including the composition of the structure and pay gap, gender obstacles and stereotyped judgments, and performance considerations and actions aimed at managing gender disparity.

4.1 Composition of the structure and the pay gap

Regarding the greater presence of women in specific departments, most respondents believe that there are differences in the role covered by women or men. According to the interviews, women are employed more in patient care, nursing, and educator jobs. In addition, two respondents believe there are not enough women in administration and particularly managers in hospitals. This is in line with the literature which highlighted that women in hospitals hold proportionately fewer leadership positions compared to men (Das et al., 2022; Forster et al., 2021; Marshall et al., 2020).

Surprisingly from what has emerged from the literature (Wright et al., 2007), all respondents answered negatively regarding the pay gap, at least in their administration.

4.2 Gender obstacles and stereotyped judgments

The second block regards the obstacles encountered, and the presence or absence of stereotypical perceived judgments. All interviewees reported that they encountered obstacles, not necessarily due to gender differences. Only one of the interviewees perceived a different treatment in the workplace compared to men. In addition, all respondents report overcoming obstacles through study, dedication, and constant commitment.

Regarding the following question about the impact of the family on the career, five out of eight respondents answer positively. One of the participants, in particular, highlights the difficulty in balancing the work aspect with caring for the family by citing the mental burden, i.e., that feeling of oppression that leads us to perceive upon ourselves the excessive weight of the daily responsibilities. According to an interviewee, "I returned early from maternity leave not taking advantage of all the concessions I could have had, having little time to devote to family had repercussions on my choice not to have more children."

Concerning the presence or absence of the glass ceiling, seven women affirm its existence. They believe precisely, as stated earlier, that the first choice in filling roles at the top falls to men, whether or not they are ready for these responsibilities, and that women must necessarily demonstrate more. This is in line with the

literature which shed light on the fact that women leaders often in hospitals were more likely to have received additional academic degrees (e.g. MBA, MPH) than their male counterparts (Das et al., 2022).

One of the interviewees elaborates on this topic by stating that very often, the presence of the glass ceiling is due to the woman herself feeling unable to fulfil a specific role, or, again, due to other women, which refers to other women as being unable to fill important roles.

Regarding the question about the existence of stereotypes toward leadership, we still obtain a majority in affirmative answer. In fact, the characteristics traditionally associated with the concept of leadership repurpose traits that are more related to males, and, therefore, difficult to associate with a woman. This is in line with the literature which underlines the fact that the gender gap is still present in healthcare sector and is rooted in gender biases and gender norms that date back thousands of years (Newman et al. 2020). As previously stated, extra effort is required for women for succeeding (Farruggia et al., 2020), and women are more likely to face barriers to career advancement than men do in their workplace (Khader et al., 2022).

4.3 Performance considerations and actions aimed at managing gender disparity

The last block focuses on performance considerations and suggestions for decreasing the existing gender gap. Regarding improving performance with female leadership or a greater female presence on the board, the minority of respondents state that they do not believe to the potential related to gender equity in leadership roles. However, the majority of participants consider that the improved business performance could improve due to female leadership because of particular skills such as organizational and multitasking ability, problem-solving, empathetic approach, mediation, and listening skills. These skills are part of emotional intelligence, which as mentioned before, is a quality recognized more by woman. This is in line with the literature which pointed out that women leaders' sense of purpose or commitment of women leaders' can affect positively their medical departments (Hobgood and Draucker, 2022).

The last two questions are aimed at finding solutions or actions aimed at reducing the obstacles towards women in the healthcare sector. Some of the respondents reiterate the notion that the greatest obstacles to progress in healthcare for women are also due to poor social support. In addition, some of the respondents oppose gender quotas because they can exacerbate the gender gap and especially the prejudice that women are not capable of achieving a certain role except through actions and not through their own abilities.

In this regard, the concrete suggestions that have been proposed are several.

An interviewee highlights that *"career development interventions for women are fundamentals. They can provide support to young female professionals, for example, through the presence of company crèches"*.

According to another respondent: *"In the hospitals, it is crucial building a culture of "diversity leadership" based on the goal is to change the organizational culture by changing the composition of the workforce. This would lead to the fact that new employees would conform to existing practices, and no additional intervention will be necessary. The mere presence of an increasing number of employees from diverse backgrounds will lead to a cultural change."*

Another interviewee highlights the critical aspect of generational change: *"It is critical the focus on generational change through awareness and information in schools, universities, and businesses activities. The main goal of these initiatives should be to eliminate stereotypes for both sexes; how? By showing role models of women in non-traditional occupations and organizing training sessions or providing men with more experience working with women. If the implementation of these initiatives is successful, women in such an organization will have more freedom to act, without worrying about the expectations and prejudices of others."*

This is in line with the literature which underlines the importance to improve the climate for women in hospitals (Carr et al., 2015), creating programs for supporting gender equity, already in medical schools (Carr et al., 2017), developing career-support measures, such as mentoring programs, role models, flexitime and flexible career structures in hospitals (Buddeberg-Fischer et al., 2010).

5. Conclusion, limitations, and future streams of research

The issue of gender equity is increasingly cited as a goal in healthcare as, at present, women still face barriers to progress toward top roles in hospitals. Indeed, although the number of female physicians in the world is steadily increasing, unfortunately, the great challenge of gender inequality is still to be solved worldwide. Gender equity, understood as justice in the distribution of benefits, power, resources, and responsibilities between women and men, in healthcare, is gaining increasing attention, although subtle and blatant gender

biases still affect women physicians and physician leaders. Recently, initiatives to raise gender awareness have been numerous, yet the issue of gender equity in the medical profession has not been adequately evaluated, especially from a qualitative perspective.

This work aims to carry out a preliminary investigation that follows the case study approach based on an Italian case study in order to identify the characteristics that obstacle to or support gender equity in terms of salary, career, and professionalism. Interviews with women medical doctors allow readers to 'hear' the 'voices' of the women who participated in the study regarding gender equity in Italian hospitals. In particular, the analysis shows that, although the issue of salary appears to be resolved in terms of gender equity, further efforts are needed from a social policy perspective to address social biases inherent in the gender issue. Specifically, career development interventions for women are fundamentals for providing support to young female professionals, for example, through the presence of company crèches. In addition, it has emerged the relevance of building a culture of "diversity leadership" based on the goal to change the organizational culture in favor of a different composition of the workforce. In such a direction, programs for supporting gender equity, already in the medical schools, appear fundamental to thrive the cultural change. Accordingly, gender equity can be achieved with special career-support measures, such as mentoring programs, role models, flexitime, and flexible career programs in the hospitals.

This contribution provides preliminary insights that pave the way for further investigation, for a deeper understanding of gender equity in hospitals. In fact, the field of investigation should be broadened, as it is limited to a restricted number of interviews. In this sense, the purely qualitative nature of the research does not allow us to generalize the findings, although the insights that emerged from this study can provide a foundation and useful stimulus for future theoretical and empirical studies, both qualitative and quantitative. Future lines of research could concern, for example, a qualitative study based on another national context or a bigger sample of interviewees. In addition, big data analysis on a social network to frame the collective perception of this issue, which deeply impacts society, could be an e stream of research. Moreover, due to the relative scarcity of specific literature, it might be of interest to carry out a systematic review regarding gender equity in the medical sector. Thanks to such an analysis, it would be possible to synthesize the diverse concepts related to this issue and develop a possible framework for organizational reflections in terms of human resource management related to gender equity in hospitals.

References

- Altin, S. E., Parikh, P. B., Squeri, E., Douglas, P. S., Wang, D. D., & Mehran, R. (2023). Representation of Women in Cardiology Academic Faculty Ranks. *American journal of cardiology*, *190*, 96-97.
- Barnes, K. L., McGuire, L., Dunivan, G., Sussman, A. L., & McKee, R. (2019). Gender bias experiences of female surgical trainees. *Journal of surgical education*, *76*(6), e1-e14.
- Brereton, P., Kitchenham, B. A., Budgen, D., Turner, M., & Khalil, M. (2007). Lessons from applying the systematic literature review process within the software engineering domain. *Journal of systems and software*, *80*(4), 571-583.
- Brüggmann, D., & Groneberg, D. A. (2017). An index to characterize female career promotion in academic medicine. *Journal of occupational medicine and toxicology*, *12*(1), 1-7.
- Buddeberg-Fischer, B., Stamm, M., Buddeberg, C., Bauer, G., Hämmig, O., Knecht, M., & Klaghofer, R. (2010). The impact of gender and parenthood on physicians' careers-professional and personal situation seven years after graduation. *BMC health services research*, *10*(1), 1-10.
- Carr, P. L., Gunn, C. M., Kaplan, S. A., Raj, A., & Freund, K. M. (2015). Inadequate progress for women in academic medicine: findings from the National Faculty Study. *Journal of women's health*, *24*(3), 190-199.
- Carr, P. L., Gunn, C., Raj, A., Kaplan, S., & Freund, K. M. (2017). Recruitment, promotion, and retention of women in academic medicine: how institutions are addressing gender disparities. *Women's health issues*, *27*(3), 374-381.
- Cooper, R. (2012). The gender gap in union leadership in Australia: A qualitative study. *Journal of industrial relations*, *54*(2), 131-146.
- Creswell, J. W. (2012). Educational research: Planning, conducting, and evaluating quantitative and qualitative research (4th ed.). Boston, MA: Pearson Education, Inc
- Das, D., Geynisman-Tan, J., Mueller, M., & Kenton, K. (2022). The leadership landscape: The role of gender in current leadership positions in obstetrics and gynecology departments. *Journal of minimally invasive gynecology*, *29*(8), 952-960.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of management review*, *14*(4), 532-550.
- Farrugia, G., Zorn, C. K., Williams, A. W., & Ledger, K. K. (2020). A qualitative analysis of career advice given to women leaders in an academic medical center. *JAMA Network open*, *3*(7), e2011292-e2011292.
- Flick, U. (2018). Triangulation in data collection. *The SAGE handbook of qualitative data collection*, 527-544.
- Forster, M. T., Behrens, M., McLean, A. C. L., Nistor-Gallo, D. I., Weiss, M., & Maurer, S. (2021). Gender disparity in German neurosurgery. *Journal of neurosurgery*, *136*(4), 1141-1146.

- Giaschi, C. (2018). Gender inequalities in medical careers: evidences from five hospitals in the Lombardy Region. *Italian journal of gender-specific medicine*, 4(2), 73-78.
- Hefner, J. L., Nembhard, I. M., Stephenson, A. L., Diehl, A. B., Dzubinski, L. M., McErlean, M., & Sidhu, M. (2021). An Exploration of Gender Bias Affecting Women in Medicine. *Advances in health care management*, 20.
- Helitzer, D. L., Newbill, S. L., Cardinali, G., Morahan, P. S., Chang, S., & Magrane, D. (2016). Narratives of participants in national career development programs for women in academic medicine: identifying the opportunities for strategic investment. *Journal of Women's Health*, 25(4), 360-370.
- Hempenstall, A., Tomlinson, J., & Bismark, M. M. (2019). Gender inequity in medicine and medical leadership. *Medical journal of Australia*, 211(10), 475-475.
- Hennein, R., Gorman, H., Chung, V., & Lowe, S. R. (2023). Gender discrimination among women healthcare workers during the COVID-19 pandemic: Findings from a mixed methods study. *Plos one*, 18(2), e0281367.
- Herzke, C., Bonsall, J., Bertram, A., Yeh, H. C., Apfel, A., & Cofrancesco, J. (2020). Gender issues in academic hospital medicine: a national survey of hospitalist leaders. *Journal of general internal medicine*, 35, 1641-1646.
- Hobgood, C., & Draucker, C. (2022). Gender differences in experiences of leadership emergence among emergency medicine department chairs. *JAMA network open*, 5(3), e221860-e221860.
- Hong, L. J., Rubinsak, L., Benoit, M. F., Teoh, D., Chandavarkar, U., Brockmeyer, A., ... & Temkin, S. M. (2022). Gynecologic Oncology and Inclusion of Women Into the Surgical Workforce: The Canary in This Coal Mine. *Frontiers in oncology*, 12.
- HSR (2022). Il Gender Equality Plan (GEP) dell'IRCCS Ospedale San Raffaele vince il premio 'Protagoniste in sanità 2022'. Available at <https://www.hsr.it/news/2022/luglio/gender-equality-plan-premio-protagoniste-sanita-2022> (retrieved on 14/03/2023)
- Ibrahim, H., Stadler, D. J., Archuleta, S., & Cofrancesco Jr, J. (2018). Twelve tips to promote gender equity in international academic medicine. *Medical teacher*, 40(9), 962-968.
- Joseph, M. M., Ahasic, A. M., Clark, J., & Templeton, K. (2021). State of women in medicine: history, challenges, and the benefits of a diverse workforce. *Pediatrics*, 148(Supplement 2).
- Khader, Y., Essaid, A. A., Alyahya, M. S., Al-Maaitah, R., Gharaibeh, M. K., Dababneh, A. B., & AbuAlRub, R. F. (2022). Women's career progression to management positions in Jordan's health sector. *Leadership in health services*, 35(4), 576-594.
- Kitchenham, B. (2004). *Procedures for performing systematic review, software engineering group. Department of Computer Science Keele University, United Kingdom and Empirical Software Engineering, National ICT Australia Ltd, Australia.* TR/SE-0401.
- Kitchenham, B., Brereton, O. P., Budgen, D., Turner, M., Bailey, J., & Linkman, S. (2009). Systematic literature reviews in software engineering—a systematic literature review. *Information and software technology*, 51(1), 7-15.
- Le Boedec, A., Anthony, N., Vigneau, C., Hue, B., Laine, F., Laviolle, B., ... & Allain, J. S. (2021). Gender inequality among medical, pharmaceutical and dental practitioners in French hospitals: Where have we been and where are we now?. *Plos one*, 16(7), e0254311.
- Lee, M. J., & Kim, C. (2020). Breaking the gender gap: a two-part observational study of the gender disparity among Korean Academic Emergency Physicians. *Journal of preventive medicine and public health*, 53(5), 362.
- Levy, J. K., Darmstadt, G. L., Ashby, C., Quandt, M., Halsey, E., Nagar, A., & Greene, M. E. (2020). Characteristics of successful programmes targeting gender inequality and restrictive gender norms for the health and wellbeing of children, adolescents, and young adults: a systematic review. *The lancet global health*, 8(2), e225-e236.
- Marshall, A. L., Durani, U., & Mikhael, J. (2020). Women in academic medicine leadership: correlation between sex of medical school deans and affiliated academic hospital system CEOs. *BMJ leader*, leader-2019.
- Moeller, E., Riesel, J., Boms, O., Pompermaier, L., Pusic, A., & Corlew, S. (2021). Female leadership in academic plastic surgery: a comprehensive analysis. *Plastic and reconstructive surgery*, 148(6), 1408-1413.
- Newman, C., Templeton, K., & Chin, E. L. (2020). Inequity and women physicians: time to change millennia of societal beliefs. *The permanente journal*, 24.
- Newman, E. A., Waljee, J., Dimick, J. B., & Mulholland, M. W. (2019). Eliminating institutional barriers to career advancement for diverse faculty in academic surgery. *Annals of Surgery*, 270(1), 23-25.
- Ngai, E. W., & Wat, F. K. T. (2002). A literature review and classification of electronic commerce research. *Information & management*, 39(5), 415-429.
- OECD (2021). The proportion of female doctors has increased in all OECD countries over the past two decades. Available at <https://www.oecd.org/gender/data/the-proportion-of-female-doctors-has-increased-in-all-oecd-countries-over-the-past-two-decades.htm> (retrieved on 14/03/2023)
- PAHO (2023). Gender equality in health. Available at <https://www.paho.org/en/topics/gender-equality-health#:~:text=Gender%20equity%20means%20fairness%20and,the%20imbalance%20between%20the%20sexes.> (Retrieved on 15/03/2023).
- Pattani, R., Marquez, C., Dinyarian, C., Sharma, M., Bain, J., Moore, J. E., & Straus, S. E. (2018). The perceived organizational impact of the gender gap across a Canadian department of medicine and proposed strategies to combat it: a qualitative study. *BMC medicine*, 16, 1-10.
- Ravioli, S., Haidinger, M., Exadaktylos, A., Pluess, E., & Lindner, G. P. (2022). Emergency medicine in Switzerland: an analysis of physician workforce, gender equality and academics. *Swiss medical weekly*, 152(39-40).

- Rome business school (2023). Gender gap, diversity and inclusion in work in Italy and around the world. Available at <https://romebusinessschool.com/blog/gender-gap-diversity-and-inclusion-in-work-in-italy-and-around-the-world-the-experience-of-doctors-without-borders> (retrieved on 14/03/2023)
- Shannon, G., Jansen, M., Williams, K., Cáceres, C., Motta, A., Odhiambo, A., ... & Mannell, J. (2019). Gender equality in science, medicine, and global health: where are we at and why does it matter?. *The Lancet*, 393(10171), 560-569.
- Silver, J. K. (2019). Understanding and addressing gender equity for women in neurology. *Neurology*, 93(12), 538-549.
- Spector, N. D., Asante, P. A., Marcelin, J. R., Poorman, J. A., Larson, A. R., Salles, A., ... & Silver, J. K. (2019). Women in pediatrics: progress, barriers, and opportunities for equity, diversity, and inclusion. *Pediatrics*, 144(5).
- Tellis, W. (1997). Application of a case study methodology. *The qualitative report*, 3(3), 1-19.
- Tricco, A. C., Bourgeault, I., Moore, A., Grunfeld, E., Peer, N., & Straus, S. E. (2021). Advancing gender equity in medicine. *Cmaj*, 193(7), E244-E250.
- Wright, A. L., Ryan, K., St. Germain, P., Schwindt, L., Sager, R., & Reed, K. L. (2007). Compensation in academic medicine: progress toward gender equity. *Journal of general internal medicine*, 22, 1398-1402.
- Yin, R. K. (1994). Discovering the future of the case study. Method in evaluation research. *Evaluation practice*, 15(3), 283-290.
- Yin, R. K. (2003). Designing case studies. *Qualitative research methods*, 5(14), 359-386.
- Yin, R. K. (2012). Case study methods.