



## Women in radiology: the SIRM believes in equal opportunity

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Received: 23 February 2022 / Accepted: 24 February 2022 / Published online: 23 March 2022  
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The Italian Society of Medical and Interventional Radiology (SIRM) established the committee “*Women in Radiology*” on May 21st, 2021. This decision came from the acknowledgment of the fact that the landscape is rapidly changing. Out of the 11.652 SIRM members in 2021, more than 5000 are women (45%). This trend is also confirmed in most European Countries, where more than 50% of the members of the European Society of Radiology (ESR) are women.

The percentage of women in radiology is particularly increasing in the younger age groups. Among SIRM members 2021, women represent 17% of the radiologists over 65-years-old, while in the age group of 35–44-years-old they are 58%. This trend will be consolidated in the next future since women are firmly over 50% of residents (from 50.8% in 2020 to 52.3% in 2022).

A recent report by the SIRM show that most women work in private practice (64%) while 41% in public facilities the scenario is even more unbalanced in leading positions of public hospitals: only 14% of the Chief of the Radiology Departments and 17% of the Chief of the Neuroradiology Departments are women. The situation is similar in academia, where women represent 26% of the faculty and only 11% of the full professors and Chair.

The problem of the imbalance of women in careers has been discussed and regulated for many years. In the far March 1943 at American Medical Association (AMA), Congressman Cellar stated “*I think women doctors have reached a situation where they should not be judged by sex; they should be judged by accomplishments and skill*” [2]. Only

in 1975, *The Sex Discrimination Act* became law in the UK while *The Women in Science and Technology Equal Opportunity Act* was passed in the United States Congress in 1979. In Italy, the problem of gender-equality is anticipated in the Republican Constitution (1946) and further implemented with specific laws in the early 2000’. So, how can the discrepancies between actual numbers and regulatory positions be explained? Historically, the promulgation of a law usually follows cultural and sociological assets or changes, and not vice-versa. Thus, the explanation of these differences must be pursued in persistent sociological and cultural factors [3].

The decreasing proportion of women in the higher positions of leadership can be metaphorically described as a “*leaky pipeline*”, where several factors cause the loss of content of a progressively damaged pipeline [3]. The first problem is purely generational: the different generations have different aspirations and aims: younger professionals are shifting from a “*life-to-work*” to a “*work-to-life*” balance with fewer leadership expectations [4]. The second problem is cultural: an individual is more positively considered when his behavior is aligned with the established social role. Men are expected to be aggressive, competitive, decisive, and independent, while women are expected to be caring, sensitive, helpful, and sympathetic: any inversion of these social roles is a social concern. In this context, motherhood may represent a further obstacle for career progresses: in the US 30–50% of women with a successful career are childless, and they declare that they have not chosen but they have done a “*creeping non-choice*” due to excessive demands of ambitious careers and asymmetries of male–female relationships. Two independent but complementary phenomena affecting the path of women’s career have also been described: the “*glass ceiling*” is the “*unseen, unbreachable barrier that keeps minorities and women from rising to the upper rungs of the corporate ladder*”; the “*sticky floor*” is the significantly higher disproportion of women and minorities relegated to lower-level jobs.

Given these premises, mentoring is particularly relevant to encourage young women to achieve professional success. However, the lower number of women in leadership

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positions and the consequent cross-gender mentoring may present several issues. A relevant point is the fact that a close personal relationship with a cross-gender mentor may be prone to gossip, envy, and charge of sexual harassment; this issue may discourage men and women from participating in cross-gender mentorship programs and will probably never disappear. Moreover, it has been argued that male mentees could be favored by female mentors (the so-called Queen bee syndrome). However, female mentees refer that female mentorship is more effective, and this is also proven by the authorships in scientific publications where female first authors are associated with female last authors suggesting a successful mentorship [3].

Once a woman reaches a leading position the problem of the “glass cliff” must be faced: leading positions are more likely to be held by women during crisis situations, when the probabilities of success are significantly lower. Even this misconception has been recently disproven since countries with female leaders had better outcomes during the COVID-19 pandemics [5].

It is recognized that the medical environment has been a *boys-club* for a long time. However, business analysis suggests that heterogeneity in the workforce means more perspectives and different viewpoints: this enhances the critical analysis in the decision process. Therefore, it is an essential requirement for improving the effectiveness, and a team gender-balanced provides better strategies and performances [3].

A critical problem is represented by the low presence of women in the world of scientific publications; a survey published by *The New England Journal of Medicine* in 2006 reported an increase of the proportion of women first authors from 5.9% in 1970 to 29.3% in 2004; similarly, the senior women increased from 3.7% to 19.3% in the same period [1].

Considering the official Journal of SIRM, “La Radiologia Medica”, in the years 2017–2021 the percentage of women as first authors, corresponding and last authors are 33–44%, 20–36%, and 15–21%, respectively. Further analysis confirmed the trend previously described: in 2017, the pre-pandemic period, 70% of women as last authors had a woman as the first author. During the pandemic period, the situation changed: 38% of women last authors had a woman as the first author, reflecting the negative impact of the pandemic on women young professionals.

Reporting the rough numbers in Italy, *mundum numeri regunt*: participations as speakers to the last SIRM National Congresses are heavily unbalanced with a percentage of women of 27% in 2016 with a slight improvement to 33% in the last year.

How can we act? With this increasing awareness, the SIRM firmly believes that the politics of increasing the representation of women in academic and leadership positions

will improve and strengthen the specialty of Radiology as a whole.

With this purpose, the SIRM committee “*Women in Radiology*” recently hosted the event entitled “Women: driving the progress” (*Donne: un motore di progresso*) which was dedicated to the Italian women in Radiology and held on February 11th, the International Day of Women and Girls in Science.

Following this path, the SIRM presents a series of tailored actions including editorial support for open access publications authored by female radiologists, observatory on gender-equality and workplaces discriminations, specific legal support for women in radiology, and a leadership program to train young radiologists to the leading positions.

In other words, SIRM believes in the fundamental contribution of women radiologists for the development of the discipline and is strongly committed to helping to break down all those professional, social and legal barriers that can lead to real equality of opportunity between professionals and members of the Society.

*“In the future, there will be no female leaders.  
There will just be leaders.”  
Sheryl Sandberg*

**Funding** None.

## Declarations

**Conflict of interest** The authors declare that they have no conflict of interest.

**Ethical approval** This publication is in accordance with the ethical standards of the constitution and/or national research committee and with the 1964 Declaration of HELSINKI and its later amendments or comparable ethical standards.

**Informed consent** For this type of publication, formal consent is not required.

**Consent for publications** Not required.

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