

Women's achievements in the medical field

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The Brazilian Federal Council of Medicine (CFM) evaluates the women's participation who carry out medical activity throughout the national territory has doubled in size in recent decades. In fact, in 1960 male participation was 87%, with only 13% of women medical. This female percentage has been growing year after year reaching 46.6% in 2020. In the analysis of the regional Councils of Medicine (CRM), responsible for the registration of new doctors who graduate and enter into activity every year, we have that in 2019 the percentage of women was 57.5% against 42.5% of men. This demonstrates the great increase in women who graduate and start their activities as doctors in our country^(1,2).

There are currently 114 different options for professional practice in the medical area, being recognized 55 Medical Specialties and 59 areas of expertise in Medicine. Women participate, in varying percentages, in all these different areas. Traditionally, the number of women in the areas of Gynecology, Obstetrics and Pediatrics has always been higher than in other areas of Medicine. This fact may be linked to some interesting factors, such as the greater affinity of women in caring for other women and children and also to the lower confrontation faced with the dominant chauvinism. Currently, the percentage of medical women in these specializations is around 70%.

On the other hand, the number of women in surgical specialties was very low in the 1950s and 1960s, but rose exponentially in the 1970s, coinciding with the increase in women attending the Schools of Medicine. The number of female records at the Brazilian College of Surgery increased from 79 in 1970 to 112 in 1980 and 164 in the 1990s. Data from 2008 from the Brazilian College of Surgeons revealed a general rate of only 11.9% of female surgeons. All surgical specialties are contemplated, but with percentages ranging from 3.84% for cardiovascular surgery, 12.5% for general surgery up to 50.5% for pediatric surgery⁽³⁾.

Among the clinical specialties there are very high numbers of women, although in percentage terms there is often a predominance of males. In the Brazilian Federation of Gastroenterology (FBG) we could verify the increase in female participation in recent years. Considering the achievement of specialist titles, we found that from 2005 to 2010 among 595 new titles there were 247 (41.5%) for women. Between 2011 and 2015, 476 gastroenterologists were held, of which 246 (51.6%) were women. In the last 6

years (2016–2021) among the 607 new title specialists there were 367 (60.4%) women. The Brazilian Society of Hepatology from 1991 to 2001 granted specialist titles to 122 physicians, including 35 women (28.6%). During the last 16 years, 268 physicians have obtained the certificate of area of expertise in Hepatology, including 162 women (60.4%). Therefore, a large increase of female doctors was observed in the areas of Gastroenterology and Hepatology, reaching the same percentage of 60.4% of women with specialist degrees in recent years^(4,5).

The great evolution of women's participation in the medical field is relatively recent. Only in the second half of the 19th century the first woman who studied medicine emerged. The pioneers who dared to enter the area of medical sciences, considered of male exclusivity, faced great obstacles in the nineteenth and twentieth centuries. According to the models of the time, it was forbidden for women to attend any higher education course in the world. In our country, it was a decree of D. Pedro II, in 1879, which allowed the enrollment of women in higher education, including medicine. This permission, however, did not end the prejudices. In 1883, in a publication entitled "Notes and comments on the Contemporary Medical School", the author, Leandro Malthus, referred to the women of the medical course: "They are deserters of the home. They are, fundamentally, the unconscious heralds who come to show us the dismal harbingers of the family's dissolution"⁽⁶⁾.

As a curious fact, we have the story of a woman, at the beginning of the 19th century, who had to adopt male identity to practice medicine. Born in Ireland in 1795 Margaret Anne Bulkley, with the help of her mother and some friends, disguised as a man and used the same name as her maternal uncle, James Barry, to enter the Edinburgh School of Medicine, where she graduated in 1812. Later, in London, he/she passed the School of Surgeons. He enlisted in the British Army and worked as a doctor in several English colonies. Although he was slender and beardless, he was teetotal and avoided intimate relationships. Thus, the discovery of her true sex occurred only after her death⁽⁷⁾.

At the beginning of the 20th century, the achievements of a woman – Marie Skłodowska Curie – demonstrated in a full way, without contestation, that the intellectual capacity of women for the sciences can be fully developed, as well as that of man. This Polish woman who went to Paris to study physics, became the first

woman to win a Nobel Prize. This first prize, she won along with her husband Pierre Curie, for having discovered radioactivity in 1903. With the tragic death of Pierre, the prestigious Faculty of the Sorbonne found itself obliged to invite her to occupy the post of Professor of Physics, the first woman to be admitted to this University. In the sequence she persisted with her research and won a second Nobel Prize in 1911, this time in chemistry, by chemically characterizing polonium and radium, the two radioactive elements discovered by her. It was the first time a scientist had won two Nobel prizes in different areas. Despite these achievements, the National Academy of Sciences in Paris refused to receive her as a member because she was a woman⁽⁸⁾. Throughout the 20th century, possibilities of study and development of women were opened, and eight researchers won Nobel prizes in the area of Medicine and Physiology, the first of them Gerty Cori in 1947.

In Brazil, the first woman who graduated from the Faculty of Medicine of Bahia in 1887 was Rita Lobato Velho Lopes, who practiced medicine in Porto Alegre, Rio Grande do Sul. The first woman to graduate from the School of Medicine of Paraná in 1919, Maria Falce de Macedo, from Curitiba, became the first full professor of medicine in our country. After her graduation, afraid to open an office and challenge the conservative customs of her city, she went to the clinical laboratory, intensified her studies on Chemistry and started as professor at the University^(6,9). The Faculty of Medicine of the University of São Paulo admitted its first full professor only in 1997 – Dr. Maria Irma Duarte Seixas. In 2022 there are 15 full professors from the same University, making up a total of 21% of women in this prestigious leadership position.

Nowadays, besides being doctors, teachers and researchers, the women have been gaining prominent positions for their competence, dedication and great personal merits. Among us, we should highlight the activities of Professor Angelita Habr Gama, who has just been included among the 2% of scientists who stood out in the publication world, in research conducted by Stanford University (USA) in partnership with Elsevier Publishing⁽¹⁰⁾.

Among the scientific articles published in the last 21 years by the **Archives of Gastroenterology**, we also found a growing participation of women as an author, i.e., a woman scientist. Between 2000 and 2005, 276 articles were published, of which 102 (36.8%) were from female authorship. From 2006 to 2016, the same journal published 671 articles and 279 (41.6%) female authors. In the last five years from 2017 to 2021, among the 389 publications, 195 (50.1%) were from female. FIGURE 1 shows this evolution over time⁽¹¹⁾.

Therefore, in recent years, the women who have entered medicine have stood out in all their possible areas, such as excellent professionals, competent teachers and also as prestigious researchers. FIGURE 2 shows some of the prominent women in the medical field over time.

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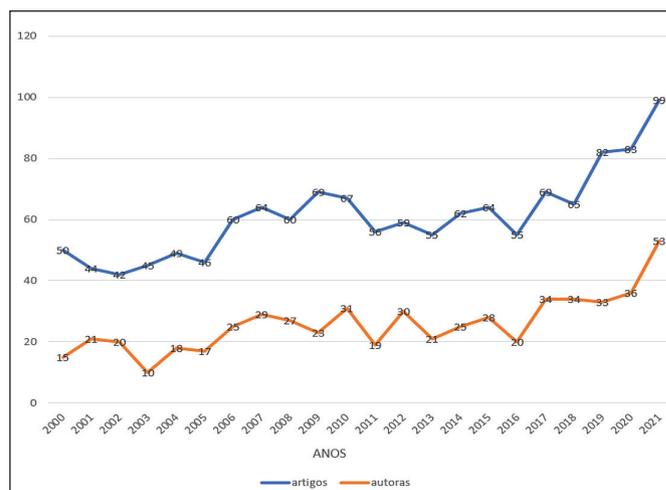


FIGURE 1. Annual dissemination of scientific articles published in the "Archives of Gastroenterology" from 2000 to 2021. The yellow line shows the growing female participation⁽¹¹⁾.



FIGURE 2. Prominent women in the medical field over time: 1– Elizabeth Blackwell -first woman to graduate in Medicine in 1849, in the United States. 2– James Barry was the male identity of a woman, who graduated and practiced medicine in the early 19th century. 3– Marie Skolodowska Curie – Polish scientist who won two Nobel prizes, proving the female capacity for the sciences, similar to that of the man. 4– Rita Lobato Velho Lopes – first Brazilian to graduate in Medicine, Bahia in 1887. 5– Maria Falce de Macedo – graduated from the University of Paraná in 1919, was the first Brazilian woman to become full Professor of Medicine. 6– Angelita Habr Gama – Full Professor of Medicine and surgeon in São Paulo, stood out in the world of research among the 2% of scientists with the highest number of bibliographic citations.

REFERENCES

1. In 20 years, the number of women who practice medicine in Brazil doubles. Available from: <https://portal.cfm.org.br>.
2. Crescem-os-registros-de-mulheres-medicas-no-Brasil. Available from: <https://apromed.com.br/blog/2020/03/09/>.
3. Franco T, Santos EG. Women and surgeons. *Rev Col Bras Cir.* 2010;37:72-7. doi: 10.1590/s0100-69912010000100015.
4. Personal communication - source: Brazilian Federation of Gastroenterology.
5. Personal communication - source: Brazilian Society of Hepatology.
6. Begliomini H. Remarkable women and pioneers in the health area of Brazil of the 19th century. Expressão e Arte Editora, São Paulo, 2021.
7. Charlotte Bond. James Barry: The Girl Who Became a Man, Fought with Florence Nightingale. Available from: <https://www.warhistoryonline.com/instant-articles/james-barry-the-girl>.
8. Curie E. Madame Curie: a biography. Amazon, 2001.
9. Schumaker S, Brazil EV. Women of Brazil Dictionary. Zahar Publishing House, 2000.
10. Baas J, Boyack K, John PAUpdated science-wide author databases of standardized citation indicators. 2021. Mendeley Data, V3, doi: 10.17632/btchxktzyw.3.
11. Arquivos de Gastroenterologia. 2022. Available from: <https://analytics.scielo.org/?journal=0004-2803&collection=scl>.

