# A Short Reflection on COVID-19 and Gender Equality in Healthcare


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## 1 Introduction

Up to 42% of the paid working population worldwide is represented by women that also comprise up to 75% of the healthcare workforce (WHO, 2008). Nevertheless, only 25% of physicians are women (Langer et al., 2015), which means that female workers are more engaged as nurses, midwives, and healthcare auxiliaries. Gender differences also emerge in specialities, as some seem to attract less female medical doctors than others, such as in general surgery (Lyons et al., 2019). A real gender issue arises when it comes to leadership roles, particularly as department chiefs

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P. Paoloni, R. Lombardi (eds.), *Organizational Resilience and Female Entrepreneurship During Crises*, SIDREA Series in Accounting and Business Administration, https://doi.org/10.1007/978-3-030-89412-2_5

(Langer et al., 2015; Yedidia & Bickel, 2001). Statistics claim that a gradual inclusion is in progress, as is evident in the membership of scientific societies. Still, gender equality seems far away (Banerjee et al., 2018; Hofstädter-Thalmann et al., 2018).

The COVID-19 pandemic has further highlighted the gender gap. Women, in general terms, have been profoundly affected not only as of the majority of healthcare workers but also as family members, especially those with children (Paoloni et al., 2021). The measures of social lockdown enforced worldwide (Romani et al., 2021), including the closure of schools and day-care centres (Wenham et al., 2020), and the need to employ smart and remote work whenever possible, have been challenging female workers in all fields, including the health sector in the lead for science research (Minello, 2020).

The field of radiation and medical oncology does not seem exempt from gender inequalities, with a low female representation at the upper management levels (Banerjee et al., 2018; Hofstädter-Thalmann et al., 2018). In this field is the National Center for Oncological Hadrontherapy (CNAO Foundation), located in Pavia (Italy), which is a unique healthcare institution treating radioresistant and difficult to cure cancer by heavy particles. The Institute's mission is not only to treat patients but also to produce scientific evidence about the application of heavy-ion treatment in cancer. It is located in Lombardy, one of Italy's most affected areas by COVID-19, and next to one of the major Italian COVID hubs.

## 2 Research Approach

### *2.1 Literature Review*

Despite the introduction of gender policies worldwide and the overall level of enrolment in graduate schools (Bismark et al., 2015), female access to clinical leadership remains unfairly limited (Ellwood & Garcia-Lacalle, 2015; Isaac, 2011). An international study (Bismark et al., 2015) found that even as women rise to leadership positions, their active involvement is restricted to administrative rather than clinical roles. According to the same report, only 38% of CEOs in large hospitals and 12.5% in mega hospitals with more than 1000 employees are women. Just 28% of Medical Faculty Deans are female, and only 33% of Department Directors are female in the clinical setting. The literature has identified a variety of impediments to gender equality in female leadership in healthcare (Bismark et al., 2015). According to some studies, a social process contributes to the underestimation of women's capacity to assume positions of responsibility. As a result of this vicious cycle, many health practitioners have developed fear, a lack of self-confidence, and a general underestimation of their capabilities, prompting them to doubt their true ability to be eligible for positions of great responsibility and leadership (Bismark et al., 2015). This has frequently resulted in women's aversion to "self-promotion" and promoting or assisting other women in leadership positions,

even though the circumstances were favourable. Moreover, women consider parenthood to be the most critical barrier to taking on responsibilities (Banerjee et al., 2018; Dal Mas & Paoloni, 2019; Hofstädter-Thalmann et al., 2018; Kalaitzi et al., 2017). The compatibility of a mother's position and that of a well-established professional is called into question. Women frequently doubt their ability to juggle two roles: professional and mother, especially given the impossibility of managing some high-level positions with reduced or flexible working hours (Banerjee et al., 2018; Lantz, 2008; Roth et al., 2016), and the fit between the so-called biological clock and maximum career expectation. To stimulate gender equality, several tools have been identified. Research has shown that support from others, especially colleagues and family members, plays a critical role (Banerjee et al., 2018; Bismark et al., 2015; Dal Mas et al., 2019). Good examples (e.g. female leaders in positions of authority within universities, scientific societies, and organizations) and the presence of female mentors who can inspire and stimulate younger workers continue to be important in the workplace (Kubik-Huch et al., 2020; Lantz, 2008). A support network's value works both psychologically and operationally, from family members and partners up to efficient childcare services for better management of young children and parental leave permits. Equality can be encouraged by the employer's flexibility, which ensures a balance of work and family life for mothers and the opportunity to identify skills beyond gender (Lantz, 2008). Flexible hours, the involvement of support networks, the development of manageable responsibility positions with limited or part-time hours (Bismark et al., 2015), and consistent job programmes and salary levels are among the most widely known strategies (Banerjee et al., 2018). For both full-time and part-time workers, lifelong learning and training appear essential (Bismark et al., 2015).

Policy and institutional factors may also affect women's advancement as health leaders (Gupta et al., 2019). The presence of female leaders in university departments, science, and professional societies will increase awareness of the problem, especially if it is accompanied by adequate measurement and control systems, and recruitment transparency. Women's networking events, facilitated by academic and professional institutions, can enable the exchange of best practices and success stories, which assist women in addressing feelings of inadequacy in particular (Lantz, 2008). Gender equality should then be endorsed in broader social policy discussions (for example, pay equity, educational access, and advocacy for the management and custody of minor children) (Bismark et al., 2015).

As a result, solutions and organizational resources that can effectively promote the participation of leading women in healthcare are urgently needed. The recent COVID-19 pandemic has intensified this situation, particularly in terms of family management and parenting (Minello, 2020; Wenham et al., 2020), in the context of a very high-stress setting (Della Monica et al., 2021), particularly for female emergency responders (Berardi et al., 2021; Mavroudis et al., 2021; Talevi et al., 2020).

## 2.2 Case Study

The methodology used is based on a qualitative research method by analysing a single case study (Yin, 2014). Data collection and analysis were carried out involving various stakeholders of the Institute. CNAO is a relatively young working environment (mean age 39, range: 23–62), and 65 of the total 128 workers are women, of whom 30 are mothers. CNAO is trying to make a difference to minimize the gender gap, with the Centre proudly encouraging women's active role in governance. Women hold most of the leadership roles in the clinical, management, and research areas. Female chiefs are in charge of the scientific, therapist and nurse, and medical direction; human resource management; communication and public relations office; accounting and finance; quality and regulatory affairs; clinical administration; and supply chain. Out of a total of 11 Medical Doctors, ten are women, including the Chief.

During the COVID 19 pandemic, women at CNAO have been fully involved in the rethinking and redesigning of the routine work. The Institute has employed several actions to enhance the safety of its workers, taking into consideration the roles and working outcomes. These actions included, whenever possible, the opportunity for flexible and remote work.

In more detail, whilst the management and administrative employees were allowed to work remotely, different solutions were studied for clinicians, who often need "in-person contact" with patients for visits and treatments. Due to the high number of women in the clinical staff, a flexible choice of routine shifts was allowed, taking personal needs into account. Due to the reorganization of out-patient activities, contingent needs have been placed on clinicians who could not take advantage of smart working due to their necessary presence at CNAO.

Several CNAO employees have spouses or partners who also work in the healthcare sector. Employees decided spontaneously to rearrange their shifts, at the same time taking into account everyone's needs, such as taking care of young children whilst their partner is at work. Whilst the Institute experienced no difficulty in organizing such shifts, a priority was given to mothers with young children and those with partners with heavy workloads (for example, other frontline healthcare professionals or partners working in the field of retail food). At CNAO, 40 out of the 65 female workers (mostly devoted to research and management/administrative roles) decided to work from home, balancing the need to take care of their children and loved ones. However, the experience of CNAO staff highlights how some female workers could benefit from the work flexibility of their male partners, who could be more devoted to looking after the children.

The CNAO Foundation has monitored the performance of remote work and flexible work shifts. Despite the domestic burden, both scientific production and clinical outputs in terms of the number of treated patients and studied cases kept meeting the expectation.

Whilst the number of published works remained satisfactory according to the Institute's standards, the CNAO was able to submit three new clinical trials to the

Ethical Committee as the promoter and the coordinator centre, and to participate as a partner in four new Italian and international Grant applications. Further minimizing the gender gap, most of the Principal Investigators (PI) and co-PIs of such projects are women. Online meetings among internal staff members as well as external collaborative groups proved to work well enough to ensure the expected outcomes, but also to keep the teamwork and motivation high, despite the social isolation.

## 3 Conclusions

Adjusting to the work during the COVID-19 outbreak is highlighting new ways of working and new opportunities that could enhance the wellbeing of female workers, especially in promoting an effective work-life balance. Some of the solutions employed during the Emergency Phase (Cobianchi et al., 2020) of the COVID-19 outbreak proved to be excellent practices that the CNAO Foundation may carry on during the Transition Phase and into the "new normal" Recovery Phase (Barcellini et al., 2020). From the "COVID experience", orientation to flexibility, acknowledging domestic burden, with the growth of flexible working hours proved to be effective for the workers' wellbeing, whilst also safeguarding the need to reach the clinical and scientific outcomes. Being an organization with several female managers-in-chief, such dynamics were particularly encouraged by all the female leaders of the CNAO, and later shared with all the workers. For CNAO, managerial as well as research implications in the near future will be to develop an organizational model to facilitate the work/life balance of its employees, especially women.

**Disclosures** Lisa Licitra has received funding (for her Institution) for clinical studies and research from AstraZeneca, Boehringer Ingelheim, Eisai, Merck Serono, MSD, Novartis, and Roche; has received compensation for service as a consultant/advisor and/or for lectures from AstraZeneca, Bayer, Bristol-Myers Squibb, Boehringer Ingelheim, Debiopharm, Eisai, Merck Serono, MSD, Novartis, Roche, and Sobi; she has received travel coverage for medical meetings from Bayer, Bristol-Myers Squibb, Debiopharm, Merck Serono, MSD, and Sobi.

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