# Gender and the COVID-19 pandemic: a review of the Brazilian scientific production in health sciences

## *Gênero e a pandemia Covid-19: revisão da produção científica nas ciências da saúde no Brasil*

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DOI: 10.1590/0103-11042021E212I

**ABSTRACT** This paper analyzes the Brazilian scientific production in health sciences, which incorporates gender issues into the COVID-19 pandemic studies. We searched for publications in the bibliographic health databases; their results were categorized into thematic axes and then analyzed. Our work does not only aim to characterize how gender asymmetry is addressed in health sciences but also acknowledges the repercussions of the pandemic pointed out on women's health. Women suffered severely from increased unemployment, domestic overload, partner violence, emotional disorders, and their quality of life, showing that political actions to fight the pandemic, when not inspected through the lens of gender inequalities, potentially prompt more significant vulnerabilities for groups already vulnerable before the health crisis, such as women, notably when racialized and poor, which also includes proper professional qualification of the primary care network and health professionals with regards to gender approaches, as noted in the literature reviewed.

**KEYWORDS** Pandemics. COVID-19. Women's health. Gender and health. Review.

**RESUMO** *Este artigo analisou a produção científica brasileira do campo das ciências da saúde que incorpora questões de gênero aos estudos sobre a pandemia da Covid-19. A busca pelas publicações foi realizada nas bases bibliográficas da área da saúde; seus resultados foram categorizados em eixos temáticos e, em seguida, analisados. Busca-se não apenas caracterizar como a assimetria de gênero é tratada no campo das ciências da saúde, mas também apreender as repercussões da pandemia apontadas sobre a saúde das mulheres. Elas sofreram duramente com aumento do desemprego, da sobrecarga doméstica, da violência pelos parceiros, dos transtornos emocionais e de sua qualidade de vida mostrando que as ações políticas para o enfrentamento da pandemia, quando não pensadas sob as lentes das desigualdades de gênero, são potencialmente produtoras de maiores vulnerabilidades para grupos já vulneráveis antes da crise sanitária, como é o caso das mulheres, especialmente quando negras, pobres e idosas. Isso inclui a devida qualificação profissional da rede de assistência básica e dos profissionais de saúde no que tange à abordagem de gênero, como notou a literatura aqui revisada.*

**PALAVRAS-CHAVE** *Pandemias. Covid-19. Saúde da mulher. Gênero e saúde. Revisão.*

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# Introduction

The pandemic caused by the SARS-CoV-2 virus, which causes COVID-19, has unimaginably impacted different groups' social dynamics and health. Several studies have been published since 2020 in different areas of knowledge to understand the effects and how to mitigate them. In public health, it is highly relevant to know how the pandemic has exacerbated health inequalities in Brazil, strongly affecting historically vulnerable groups. In the country, women, especially Black and poor women, have been the most affected by social injustice as they are subject to substandard conditions in the labor market and access to social rights[1].

The feminist theory and gender studies, in their diverse theoretical perspectives and approaches, discussed the production of knowledge conducted until then, showing that power relationships between sexes hindered or even precluded approaching gender in science[2].

In their first configurations, these studies aimed to denaturalize the belief of biological determination on behaviors. The precursor idea was that the female condition was culturally created by socioeconomic structures[3,4]. The critique of biological determination, associated with analyses of women's condition, revealed that this situation carried a male oppression relationship at its core.

Thus, the gender approach as a relational and not universalist category developed, and the theoretical perspectives that emerged drew attention to the importance of articulating this category with others, such as social class, race, ethnicity, sexual orientation, generation, and territory[5-7]. The analysis of these interrelationships has been expanding in an interdisciplinary way and developing amid critical perspectives and the consolidation of the feminist social movement in various parts of the globe[8-10].

Based on gender studies and feminist theories, this paper aims to analyze Brazilian scientific production in health sciences that incorporates gender issues into studies on the COVID-19 pandemic. We aimed to understand the repercussions of the pandemic on women's health and contribute to strengthening a gender approach in health policies and actions.

# Material and methods

The bibliographic research was conducted through the Regional Portal of the Virtual Health Library (BVS), searching the Medline and Lilacs databases in public health. Despite recognizing collective health as an interdisciplinary field, we decided to work with typical health databases and not incorporate those of social and human sciences. The results found were categorized into thematic axes, which structure the analysis.

The search targeted Brazilian production from March 2020 to July 2021 and included national, state, and municipal studies. Two searches were conducted, with broad criteria, to encompass all the works. The first used the following filters: 1) Portuguese terms: (pandemic or coronavirus or COVID) and (woman, gender, or female); 2) terms found in the title or abstract or subject; 3) with full text or not; 4) period 2020-2021; and 5) 'Portuguese' language. The terms were the same in the second search, except for the fifth and last one, 'Brazil' (in this case, the language filter was not used). Changing this filter sought publications that addressed the Brazilian reality and were published in another language.

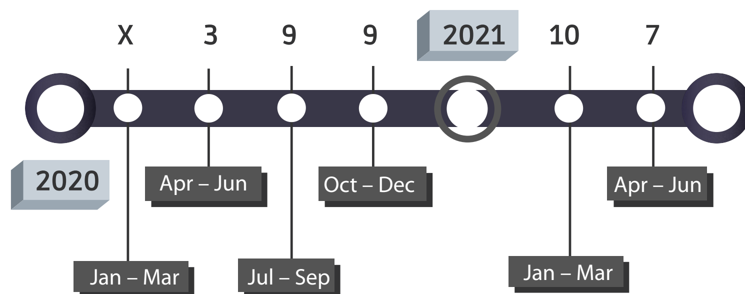
We found 1,048 records. Initially, repetitions were eliminated by title. Next, works published in journals not in health sciences knowledge were excluded, as classified by the Coordination for the Improvement of Higher Education Personnel (CAPES). In the next step, all abstracts were read, and

publications outside the topic or whose results could not be analyzed from a gender perspective, such as therapeutic guidelines and technical notes on clinical aspects, were discarded. In the case of scientific papers, those in preprint, published in the databases before the final acceptance of the journal to which they were submitted, were also discarded. This situation was frequent, especially in the first year of the pandemic. Opinion papers, reflections, and experience reports were also excluded. In the end, 38 scientific papers remained and composed the corpus for analysis.

## Results

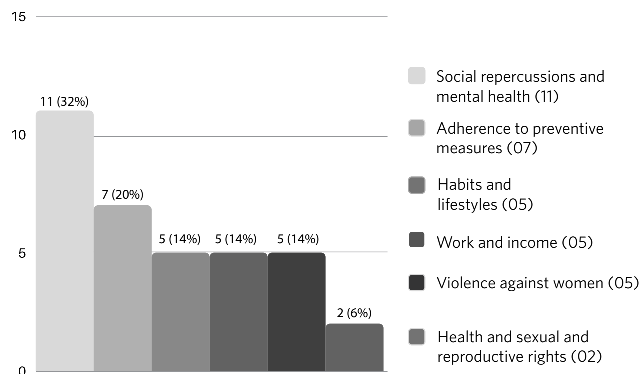
According to CAPES, the primary area of health sciences consists of the following areas of knowledge: Medicine, Nutrition, Dentistry, Pharmacy, Nursing, Collective Health, Physical Education, Speech Therapy, Physical Therapy, and Occupational Therapy. The 38 reviewed publications are distributed as follows: Collective Health (23), Nursing (8), Medicine (5), and Physical Education (2). The publications were concentrated in the second half of 2020 and the first quarter of 2021, as can be seen in *figure 1*:

Figure 1. Timeline of publications, in health sciences, on gender and the COVID-19 pandemic in Brazil, from January 2020 to July 2021




Generally, publications had more than three authors, with an average of four authors per publication. Except for one paper, women appear in the authorship of all publications reviewed here, and they are the principal author in 24 of them (63%). Several themes were addressed in the publications, but we managed to group them into thematic axes, and they were primarily consistent with the core issues of gender studies. The exception concerns adherence to preventive measures against COVID-19, a topic specifically related to the pandemic, which has emerged relevantly, as we will see below. As immunization in the country was not yet underway then, only one paper addressed vaccines. The systematized axes were: Emotional repercussions and mental health (11); Work and income (8); Adherence to preventive measures (7); Habit and lifestyle (5); Violence against women (5); and Sexual and Reproductive Health and Rights (2). *Figure 2* shows the distribution of publications by thematic axis.

Figure 2. Proportional distribution of publications reviewed by thematic axes




The works presented an intersection regarding the axes of analysis, but the classification imposes choices regarding the principal object. For example, studies whose predominant theme was mental disorders were included in the axis of emotional repercussions and mental health, although they sometimes had economic motivations as the reason for the disorders. Similar choices were made for the other axes.

## Emotional repercussions and mental health

This thematic axis gathered 11 works, distributed in the areas of Collective Health (5), Nursing (4), and Medicine (2). It contains investigations that sought, at the onset of or throughout the pandemic, to know the significant emotional repercussions of isolation and the pandemic and the social groups most emotionally impacted. We found that women were the most affected by loneliness, isolation, anxiety, sadness, depression, loss of social support, trauma, stigma, and discrimination.

Malta et al.[11] highlighted that these feelings were associated with increased cigarette consumption and deteriorated sleep quality and mental health in women. Romero et al.[12] showed that reduced income and increased domestic burden adversely affected older women's emotional and mental health, especially those who are more socially vulnerable. Moraes-Filho et al.[13] discussed the importance of friendship to overcome tensions during the pandemic. They indicated that being female, white, and having a higher income contributed to higher tolerance levels in friendship relationships.

Three of the papers reviewed addressed professional biomedicine categories, and women showed more significant psychological distress in all of them. Teixeira et al.[14] specifically addressed medical students, while Santos et al.[15] and Dal'Bosco et al.[16], nursing professionals. In the case of the research with medical students, women showed a higher prevalence of psychological distress (80%), which also occurred among the nurses in the study conducted in the private sector (86.7% of the respondents), with racialized women, with a monthly income of less than five minimum wages, and showed more symptoms suggestive of mental disorders[15]. The study by Dal'Bosco et al.[16] addressed mostly white female professionals earning more than three minimum wages. However, the author reached a similar conclusion: they also suffered from anxiety and depression. Anxiety prevailed (49%) over depression (25%), and married women aged 31-40 years were the most affected.

Three studies conducted in the first months of the pandemic concluded that the most vulnerable women had deteriorated mental health. Zhang et al.[17] found that being a woman, having a low income, having a lower schooling level, and suffering an income reduction were related to deteriorated mental health. In a broader study, Souza et al.[18] dedicated themselves to the topic of social distancing during April and May 2020 and achieved similar results. Barros et al.[19] addressed sleep issues at the onset of the pandemic and identified that more than 40% of the people who did not have sleep problems started to have them and that 50% of those who already had sleep issues worsened. According to the authors, women were most affected in both cases. During 30 days at the outset of the pandemic, Lima et al.[20] found an increase in or incidence of sleep problems by demographic and economic conditions before the pandemic. They then compared them to changes in financial, occupational, and household conditions during the pandemic. Women were the most affected (82%) among the groups that showed the most significant sleep disorders due to the increased burden of household chores.

Only one study specifically addressed women. Santos et al.[21] investigated the mental health of women deprived of their liberty, based on self-reports of anxiety symptoms related to COVID-19, in a prison unit in Salvador, Bahia. In the narratives collected from 41 women (mostly young), 95% reported some anxiety. Aspects such as being black, belonging to the popular classes, having low schooling, being a single mother, and not having contact with the family increased these women's likelihood to develop psychological disorders.

## Work and income

The eight studies that focused on the impact of work on women's health during the pandemic were distributed in the fields of Public Health (6) and Nursing (2). Analyses highlighting the overload observed in women's paid care, and unpaid domestic care work predominated, especially among health professionals, who also faced greater exposure to contagion and burnout. The studies on this axis showed relevant intersections with the other axes discussed here, especially mental health.

With data from the state of Bahia, Almeida et al.[22] indicated that, in the cases reported from March to September 2020, 2,920 were related to contagion at work, with a predominance of females (64.5%), with an age group of 30-39 years (39.9%). The health sector was the most affected regarding the number of infected professionals (37.1%), and the most infected professional categories were: Nursing technicians and assistants (25.7%), followed by nurses (13.3%), doctors (6.3%), and community health workers (4.9%).

The authors affirm that the higher frequency of COVID-19 cases among the female workforce in the health sector stems from the sexual division of labor, which leaves women the most direct work in care, the poorer and racialized they are. Bittencourt and Andrade[23] noted that this work, performed chiefly by working-class women, is undervalued and poorly paid. In recent decades, it has become increasingly substandard, with growing temporary contracts, labor rights loss, activities overload, and unsafe working conditions.

In the pandemic, this condition was further aggravated by the lack of personal protective equipment, the fear of contagion, concerns about children and family members, and the experiences of facing their death and illness and those of their peers. Their work drains the body and emotions. Bittencourt and Andrade[23] tapped on the contributions of gender studies to analyze the care work performed by women, especially in health, in its dual facets, namely the productive and reproductive spheres, emphasizing the specifics of care as work. They adopted the concept of the sexual division of labor and care work, questioning the inequalities between men and women and the conditions to which women are exposed in health and, particularly, in the COVID-19 pandemic.

Through the content of the YouTube™ videos, Carvalho et al.[24] addressed nurses' leading role in the production of care during the pandemic and their insecurity while exercising their profession. The authors pointed out the care duty overload in the Nursing professional activity, historically subjected to substandard conditions and devaluation in the health sector's hierarchy.

As a common feature, Carvalho et al.[24] highlighted that domestic work, which is invisible because it is not paid, is added to paid care work. Besides providing economic support, women are also primarily primary caregivers of children, older adults, and the sick in their families and neighborhoods. When analyzing the health of premature children born in the pandemic, Silva et al.[25] drew attention to the physical and emotional burden of mothers with household chores, the home, the family, and neonatal care. Camarano[26] shows that older women were also more prone to the risk of contagion, unemployment, and domestic overload in the pandemic, as they remain primarily responsible for family care.

Pizzinga[27] analyzed the situation of domestic workers in the COVID-19 pandemic in the face of the vulnerabilities of the category and the federal decrees that defined essential activities. She analyzed the differences between men and women, identifying the greater inclusion of men in essential activities and women in non-essential and informal activities, which made them more susceptible to bond loss during the pandemic, also corroborated by Castro et al.[28]. Pizzinga[27] also detected domestic overload in these female workers who had fewer stable bonds the more they were racialized, exacerbating their vulnerable conditions in the face of the crisis generated by the pandemic. Another study that well captured the social conditions of this category was that of Manfrinato et al.[29], on food insecurity in the first weeks of the physical distancing policy in two Brazilian favelas. Manfrinato et al.[29] revealed that 88% of households affected by food insecurity included young women who worked as housekeepers or kitchen helpers and in sales services. Only a fifth of them received financial aid from the Bolsa Família (Family Aid) program, and 92% of the families had children. Uncertainty about purchasing or receiving food reached 89% of participants, 64% reported eating less than they should, 46% were unable to eat healthy and nutritious food, 39% skipped a meal, and 47% had moderate or severe food insecurity in the analyzed period.

## Adherence to preventive measures

Preventive measures against COVID-19 include mask use, restricted interpersonal contact, and hygiene care. At the time of the search, vaccine immunization was not yet available. Seven studies (Collective Health (6) and Nursing (1)) that analyzed adherence to preventive measures against COVID-19 showed that women adhered more than men.

In an online survey, Lima et al.[30] observed that women perceived themselves to be more at risk of contamination than men, which the authors credited to women's greater sense of self-care. They evaluated that this perception of greater risk could also be related to the inclusion of many health professionals in the study, a predominantly female workforce at greater risk.

Batista et al.[31] measured protective behaviors against COVID-19 in the Brazilian population aged 50 years and over. The study showed greater adherence to social distancing (not leaving the house) among women compared to men. The higher frequency of protective behavior among women was explained by their greater awareness of disease prevention and health promotion habits, mainly because they are the primary providers of care for families and are more restricted to the domestic environment. The best performance of women in social distancing was also found by Lima-Costa et al.[32], through telephone interviews; and by Guimarães et al.[33] and Szwarcwald et al.[34], in surveys on social networks, the latter of which

showed that men were almost twice as likely to have no restriction or little restriction of physical contact compared to women.

As for the inappropriate use and reuse of masks, gender contrasts can be discerned in the studies by Pereira-Ávila et al.[35]. Through individual forms made available on social networks, being a woman increased the likelihood of wearing masks and reduced the possibility of reusing surgical masks – a practice not recommended by the health authorities.

Finally, Oliveira et al.[36] estimated the prevalence and factors associated with hesitancy in vaccinating against the SARS-CoV-2 virus in Maranhão if vaccines were available. The authors showed that women were more hesitant and assumed that because they are more likely to make health decisions for their children, they might also be more likely to seek information about vaccines and be exposed to anti-vaccination content.

## Habits and lifestyles

Five works that aimed to discuss the impacts of the pandemic on women's habits, leisure, and lifestyle were grouped in this axis. They were published in Public Health (3) and Physical Education (2) journals. Studies on physical exercises and lifestyle changes during the pandemic detected losses among women because they were more burdened with domestic care. Crochemore-Silva[37], Rodrigues et al.[38], and Gonçalves et al.[39] also pointed out that those living in worse socioeconomic contexts were even more affected. Rodrigues et al.[38] and Malta et al.[40] highlighted that the intergender discrepancy in engaging in physical activities existed before the pandemic. Rodrigues et al.[38] also indicated that this could be explained by the same overload of family care and domestic activities, which historically penalizes women, especially Black and mixed-race women, depriving them of time for leisure and self-care. Regarding tobacco and alcohol consumption, food, and physical activity during isolation, Malta et al.[40] noticed in both sexes an increase in the consumption of fried, frozen, processed foods, and specifically sweets among women. While men increased their alcohol intake, they turned to tobacco use to compensate for adverse effects.

Finally, the study by Teotônio et al.[41], which examines the quality of life in Brazil during the pandemic, indicated a perception of lower quality of life among women than men, without raising a hypothesis to explain the result.

## Violence against women

Despite being considered in the specialized literature one of the biggest problems of women's health, especially during the pandemic, the Violence against Women (VAW) axis was found in only five papers, distributed in Collective Health (3), Nursing (1), and Medicine (1). Brazil recommended and sometimes imposed social distancing during the pandemic, with a partial closure of economic activities, schools, and restrictions on public events and services, which made family interaction more intense at home. The papers analyzed argued that isolation would have led to a growing number of domestic violence cases and hindered victims' access to public information and help networks and services[42-45].

Silva et al.[46] identified the factors listed in the literature that contributed the most to increasing male violence against women in Brazil in times of a pandemic, as follows: social isolation with partners; consumption of alcohol and other drugs by partners; the pressure of the economic crisis on the couple; female overload; and the weakening women's support network. Some studies added the fear of getting sick and the uncertain situation among these factors[43,44]. These elements appeared at varying levels in all texts reviewed on this axis.

Vieira et al.[44] see VAW not as a direct consequence of the pandemic but as the exacerbation of historically structured violence,

which expresses the patriarchal power system in a new context. They pointed out that the control of domestic finances, the distribution of domestic tasks, men's feeling of possession, and loss of power would have increased the tension within the home, triggering violent behaviors in the partners, but still reasonably tolerated because society is patriarchal, androcentric, and misogynistic. They argue that isolation would increase the male partner's margin of action in psychologically manipulating women and surveilling their communication with the support network. In contrast, access to this network, particularly in social assistance, health, public security, and justice, was reduced because of the fear of contagion.

All the authors reviewed here sought to identify the challenges of VAW and emphasized the need to expand the support/care network and to provide alternatives and means for the protection/reception of women[42-44,46]. The sudden decline in household income, increased abuse of alcohol and other drugs by partners, the professional qualification for the intersectional approach to the support network, and working with male physical abusers listed among the most relevant challenges.

When seeking to understand the strategies to combat domestic violence against women disseminated by digital media at the outset of the COVID-19 pandemic, Fornari et al.[42] concluded that most of them were adapted from existing services, focused on women denouncing violence perpetrated against them. The use of digital technologies for relief, the increased number of teams in the violence prevention and response hotlines, and the proper dissemination of available services were among the measures proposed by the literature reviewed to mitigate the problem. They also emphasized the need to train health workers to identify risk situations and expand and strengthen support networks, increasing the number of vacancies in shelters for surviving women, besides informal and virtual social and material support networks. Finally, they also considered it essential to change the discourse of rulers who end up acting against the evidence of VAW and the qualification of the care network for the gender approach.

### Sexual and reproductive health and rights

Two publications addressed women's health, both around knowledge of Medicine. The paper by Wenling et al.[47] compared the pathogenesis, pathogeny, and clinical features of pregnant women infected with SARS-CoV-2 and MERS-CoV. The authors point out that, until June 18, 2020, 124 maternal death cases were reported in Brazil and stressed that the high mortality could alert to a worse development of the disease and worse prognosis. They point to the adverse setting, such as an insufficient number of health workers and limited intensive care resources, as harmful to the health of pregnant women.

Takemoto et al.[48] described the clinical characteristics of pregnant women with COVID-19 in Brazil and examined risk factors for mortality. Working with the same reports and based on the 124 maternal deaths, they calculated a case fatality rate of 12.7% in the obstetric population. This high rate would be related to clinical risk factors, such as the onset of acute respiratory syndrome in the postpartum period, obesity, diabetes, and cardiovascular diseases. The findings also indicated that being white had a protective effect, while barriers to accessing healthcare, which affect the non-white population more, were related to increased mortality.

## Discussion

The merits of the papers reviewed here were offering data and discussions from different areas of health knowledge, which allowed approaching the pandemic from the perspective of gender relationships and their intersectionality. They explained aspects underlying the

asymmetrical social relationships between the sexes, regardless of a pandemic.

Although most of the papers are not exclusive to women, women occupied a good part of the analyses, either because they are a significant contingent of the workforce responsible for health care or because they live in social conditions that historically make them more vulnerable. These conditions stem from situations that are objects of interest in feminist literature, such as the sexual division of labor, asymmetric power relationships, and socialization for care[49].

Categories and concepts from the feminist theoretical field were used in most of the publications reviewed, showing that the health field has been progressively incorporating the contributions of human and social sciences on gender. However, the papers generally do not deepen the dialogue with social theories or even explain their theoretical perspectives. Most of them favored the design of studies and their findings to the detriment of in-depth theoretical analysis that explains the reality found, which may be a characteristic of publications in this field, whose form and content favor empirical rather than theoretical reflections. The variables of gender, ethnicity, class, and sexual orientation, in turn, were incorporated into the publications, which were essential for understanding the diversity of women as a social group.

Public health was the area of knowledge that accounted for the most significant number of selected publications[23], practically two-thirds of the material reviewed. It is an interdisciplinary field that dialogues with other areas of knowledge, such as epidemiology, social and human sciences, philosophy, and administration[50].

Ranked second was Nursing, with eight papers, favoring the approach of topics related to professional practice in the pandemic, such as social rights, motherhood, and violence, which is basically due to the composition of its workforce, primarily female, and mainly, to care as a reason for professional practice.

The work and income axis showed that women were very economically affected by the pandemic in Brazil, predominantly Black and poor women, which highlighted the social injustice that, according to feminist literature, historically affects women more[51,52]. The literature reviewed here shows that concern for livelihood and increased unpaid housework directly affected women's mental and emotional health. It is worth noting the substantial impact, especially on Nursing workers, as evidenced by the literature on the subject[53].

The reviewed studies also showed that, in the pandemic, emotional labor or the so-called 'mental burden', which concerns the management of domestic and emotional tasks of the surroundings, increased. The effort to anticipate and meet the needs of others, typical of care work, was more emotionally draining for women than ever before, which was also reflected in the lower willingness and availability for the physical exercise routine (self-care) and deteriorated habits and lifestyle. The socialization that submits women to care for others, allowing them to have a greater perception of risk, prevention, and hygiene habits, would also explain their greater adherence to preventive measures against COVID-19[54].

Gender studies and feminist theories significantly contributed to understanding the social division of labor between the sexes or the sexual division of labor[49]. In its various aspects, care research has reinvigorated analyses on the topic[55]. The unequal distribution of domestic chores, which significantly burdens married women with children, showed that the male presence in the home did not represent, in the pandemic, distribution of tasks; on the contrary, it overloaded and even threatened the physical and emotional integrity of women, explaining the home environment as another sphere of exercise of male power.

VAW was already high in Brazil before the pandemic and increased after COVID-19 worldwide[56]. It usually occurs in the family and domestic context and is perpetrated mainly by intimate partners and relatives. Stockl et

al.[57] estimated that one in three women of reproductive age has experienced physical or sexual violence perpetrated by an intimate partner in her lifetime, and partners account for more than a third of femicides worldwide.

Despite the relevance of VAW in the feminist agenda[58], few works were dedicated to the topic. In general, the studies emphasized the pressure of physical-social distancing on partners, with higher consumption of alcohol and other drugs due to situational tensions. The difficulties for economic inclusion, which restricted women to the domestic sphere, also increased their exposure to living with partners. However, little attention was paid to socialization aspects that expose women to violent relationships or actions targeting perpetrators and preventing physical abuse.

The issue of sexual and reproductive health and rights is central to gender studies. Multiple aspects related to the birth experience have been addressed in health, such as access to prenatal and childbirth care, obstetric violence, and social inequalities[59-61]. In this review, maternal death and mortality stood out in the two papers analyzed.

However, we expected to find more works on these topics since they represent an enormous health problem in Brazil, expanded by the COVID-19 pandemic[62,63]. A possible explanation is that papers dedicated to these themes use specific descriptors and, therefore, were not retrieved in the search conducted for this work.

## Final considerations

The reviewed studies show that the COVID-19 pandemic engendered harsh consequences for women, such as increased unemployment, domestic overload, emotional disorders, and partner violence, which shows that technical and political actions to face the health crisis, when not planned through the lens of gender inequalities, potentially produce more social injustice for already vulnerable groups, especially Black, poor, and older women. The literature reviewed here pointed to the need for public policies to strengthen social protection networks and the qualification of health workers regarding the gender approach.

It is worth mentioning the presence of women in the authorship of most of the works on all axes, which reinforces the importance of female leadership for including gender-related themes in the scientific health agenda.

As a limitation of this study, we should mention that the quality of the included papers was not assessed. One way to mitigate this limitation was to exclude preprint papers, opinion papers, reflections, and the like from the analysis corpus and include only peer-reviewed scientific papers, which removed publications that addressed the consequences of the pandemic on specific groups, such as lesbians and trans women, revealing a gap regarding these populations in scientific works. Another critical gap concerns Indigenous women, not included in any studies reviewed here. It is worth mentioning that they were not located even in the initial stages of selecting papers in the databases and areas of knowledge covered.

Future studies should extend the search to the scientific production of the social and human sciences regarding health, which would allow mapping of other themes and approaches that involve gender relationships and, above all, expand knowledge of the effects of the pandemic on women. Thus, it will be possible to strengthen health policies and actions for this population group, accounting for more than half of the world's population.

## Collaborators

Sousa ACA (0000-0002-5288-2274)* and Lago RF (0000-0002-5130-7411)* contributed to the design, data analysis, writing, and approval of the final version. Costa DM (0000-0003-2222-5676)* and Pereira SR (0000-0002-5571-9261)* contributed to data analysis, writing, and approval of the final version. ■

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Received on 08/01/2021
Approved on 12/30/2021
Conflict of interests: non-existent
Financial support: non-existent