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Vulnerabilities highlighted by the COVID-19 pandemic from a bioethics perspective

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Abstract

This integrative literature review sought to identify the vulnerabilities faced by the Brazil population and which were highlighted during the COVID-19 pandemic. Bibliographic search conducted on the SciELO, LILACS and PubMed databases from February to March 2021 identified seven articles, which were organized by title, author(s), methodology, objectives, and main findings. The analysis found the following vulnerabilities: denial of rights, lack of socioeconomic power, and violence against children and the aged. These were systemized into the categories “vulnerability by lack of power” and “vulnerability by human development cycle.” Such vulnerabilities are historically marked in Brazil and have increased during the pandemic, thus highlighting the need for a bioethics-based active intervention.

Keywords: Social Vulnerability. Health Vulnerability. COVID-19.

Resumo

Vulnerabilidades evidenciadas pela pandemia de covid-19 na perspectiva da bioética

Por meio de revisão integrativa da literatura, este artigo teve o objetivo de identificar vulnerabilidades da população brasileira evidenciadas durante a pandemia de covid-19. Realizou-se busca nas bases de dados SciELO, LILACS e PubMed no período de fevereiro a março de 2021, sendo selecionados sete artigos, que foram organizados conforme as informações a seguir: título, autor, abordagem dos estudos, objetivos e principais resultados. Foram encontradas as seguintes vulnerabilidades: negação de direitos, falta de poder socioeconômico e violência contra crianças e idosos. Estas foram sistematizadas nas categorias “vulnerabilidade por falta de poder” e “vulnerabilidade por momentos do desenvolvimento humano”. Constatou-se que essas fragilidades são historicamente marcadas na população brasileira e têm sido acentuadas neste período de pandemia, o que ressalta a necessidade de intervenção ativa na perspectiva da bioética.

Palavras-chave: Vulnerabilidade social. Vulnerabilidade em saúde. Covid-19.

Resumen

Aumento de las vulnerabilidades en la pandemia del covid-19 desde la perspectiva de la bioética

Desde una revisión integradora de la literatura, este artículo tuvo como objetivo identificar el aumento de las vulnerabilidades de la población brasileña durante la pandemia del covid-19. Se realizó una búsqueda en las bases de datos SciELO, LILACS y PubMed, entre febrero y marzo de 2021, que dio como resultado siete artículos, que fueron organizados por: título, autor, enfoque del estudio, objetivos y principales resultados. Se encontraron las siguientes vulnerabilidades: Negación de derechos, falta de poder socioeconómico y violencia contra niños y adultos mayores. Estos datos se sistematizaron en las categorías de “vulnerabilidad por falta de poder” y “vulnerabilidad por momentos del desarrollo humano”. Se constató que estas debilidades ya estaban históricamente marcadas en la población brasileña y se acentuaron aún más en este período de la pandemia, lo que muestra la necesidad de una intervención activa desde la perspectiva de la bioética.

Palabras clave: Vulnerabilidad social. Vulnerabilidad en salud. Covid-19.

The authors declare no conflict of interest.

COVID-19, disease caused by the SARS-CoV-2 virus, was declared a pandemic in March 2020^{1,2}. As a means to stop the virus spread, several countries adopted social distancing as a preventive measure, leading to significant changes in everyday life^{3,4}.

This pathology affects everyone, regardless of age group, gender, ethnicity, and socioeconomic status. However, vulnerability to COVID-19 is strongly related to the social determinants of the health-disease process. Financial status and access to health, education, and social protection services influence its prognosis and evolution³.

Vulnerability, the frailty of individuals and populations in situations of helplessness, is a concept under ongoing discussion in the field of bioethics. This debate provides bioethics scholars with instruments to ensure fundamental rights and prevent or hinder the continuation of arbitrariness that affects vulnerable populations or subjects⁵.

Unequal social, cultural, political, and economic relations, whether individual or collective, are more likely to produce vulnerable people or social groups⁶. The COVID-19 pandemic specifically has made people vulnerable due to the uncertain scenario⁷.

Rogers and Ballantyne⁸ typify the various expressions of vulnerability in intrinsic and extrinsic. Intrinsic vulnerability is produced from the individual's characteristics, whereas extrinsic vulnerability occurs due to external issues and arise from the socioeconomic context. The authors also state that these vulnerabilities can occur together, thus, intensify each other.

In intrinsic vulnerability, the individual characteristics involved are related to physical or mental illnesses and to specific moments in human development: childhood, adolescence, old age, and pregnancy. In extrinsic vulnerability, issues external to individuals relate to lack of power, educational differences, and lack of access to basic healthcare services^{8,9}.

Given this scenario, this study sought to verify vulnerabilities highlighted in the Brazilian population by the COVID-19 pandemic.

Method

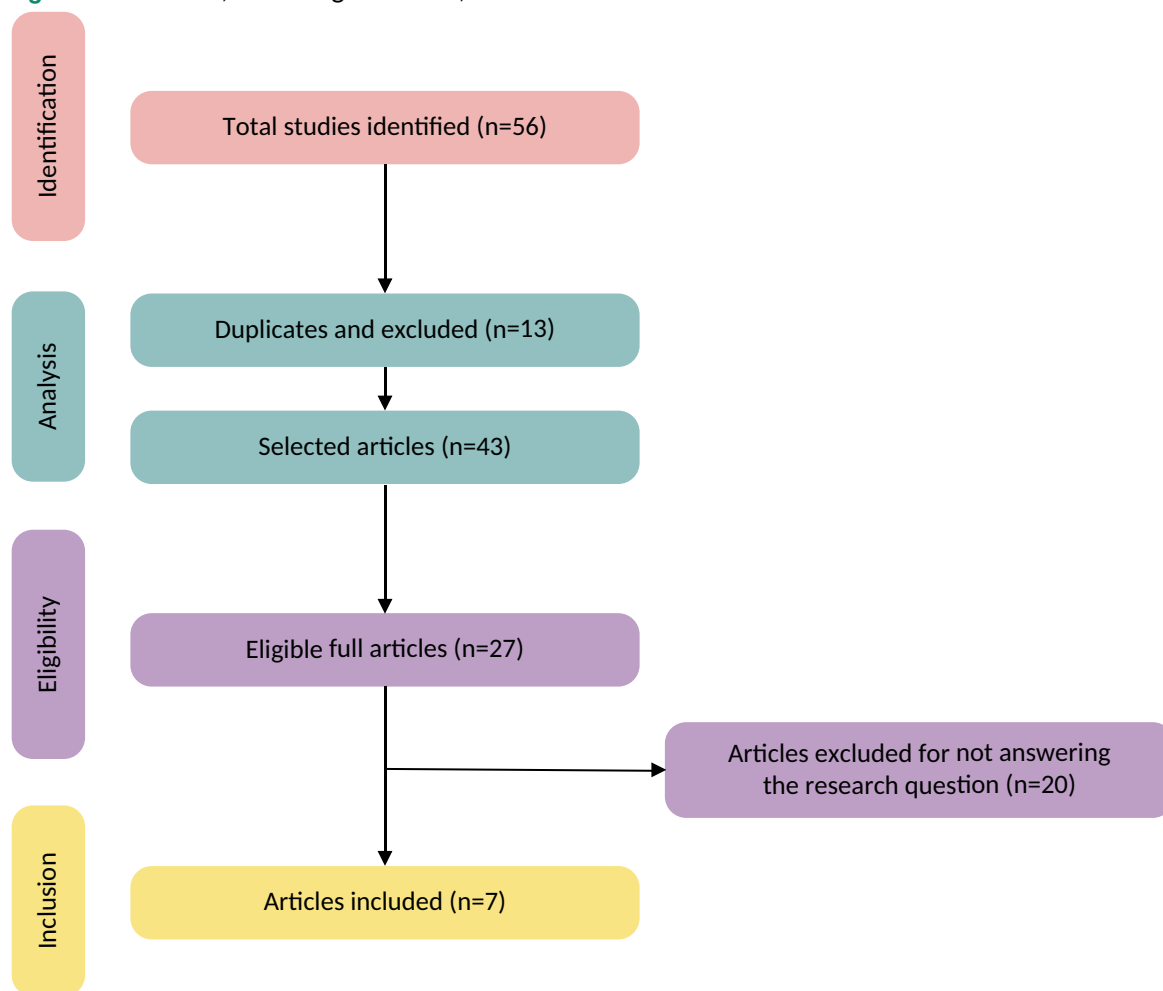
This is an integrative review, which consists of a robust scientific communication tool that allows a broader understanding of a given phenomenon. Its development involved the following phases: identifying the theme and selecting the research question; establishing study eligibility criteria (inclusion and exclusion criteria); searching or sampling the literature; collecting data; analyzing the data; discussing results; and presenting the review¹⁰.

Our starting point is the following research question: What are the vulnerabilities highlighted by the COVID-19 pandemic in Brazil?

To answer this question, data were collected from February to March 2021 on the SciELO, LILACS, and PubMed databases. Bibliographic search strategy consisted of Descriptors in Health Sciences (DeCS/MeSH) articulated by Boolean operators "and" and "or." In the SciELO and LILACS (DeCS) databases, we used the descriptors "vulnerabilidade social or vulnerabilidade em saúde and COVID-19 and Brazil"; in PubMed (MeSH), we used "social vulnerability or health vulnerability and COVID-19 and Brazil."

Inclusion criteria for article selection consisted of articles published in Portuguese and English on the vulnerabilities highlighted or intensified in the Brazilian population by the COVID-19 pandemic, freely available in full. Studies published on vulnerabilities in other diseases or contexts and those that did not answer the research question were excluded. Duplicate studies were also excluded. Figure 1 illustrate the process of article selection and inclusion as recommended by Prisma¹¹.

This review followed Resolutions 466/2012¹² and 510/2016¹³ of the National Health Council, which waiver submission to the Sistema CEP/Conop of research analyzing secondary databases in public domain.

Figure 1. Flowchart, according to Prisma, for article selection

Results

Of the 56 articles identified in the databases, 13 were duplicates and 16 were excluded for not meeting the inclusion criteria. After reading the 27 pre-selected articles in full, 20 studies were excluded for not answering the research question, thus resulting in seven articles selected for this integrative review.

Data from the selected articles were recorded in a Microsoft Excel spreadsheet and summarized according to title, author(s), database, study approach, objectives, and main results (Chart 1).

Data analysis showed that two studies were in English and five in Portuguese, published in 2020 and 2021. Five were reflection papers, one was an ecological study, and one was a nationwide register-based research.

Chart 1. Summary of the articles selected for review according to title, author(s), database, study approach, objective, and main results

Article	Author(s)	Database	Study approach	Objectives	Main results
1) "Pessoas LGBTI+ e a covid-19: para pensarmos questões sobre saúde"	Sousa and collaborators; 2021 ¹⁴	LILACS	Reflection paper	To critically reflect on the health status scenario of LGBTI+ people in the context of the COVID-19 pandemic.	During quarantine, not all informal workers received emergency aid, and the disruption of drag entertainment events led transgender women and <i>travestis</i> to engage in sex work during the pandemic. The high mental illness rate found may increase due to post-traumatic stress generated by pandemic and limited access to health services, and attacks against the rights of this population, based on denialist, obscurantist, reactionary, queerphobic, and delegitimizing stances.
2) "Spatial analysis of COVID-19 incidence and the sociodemographic context in Brazil"	Raymundo and collaborators; 2021 ¹⁵	PubMed	Analytical ecological study	To analyze the spatial distribution of COVID-19 incidence in Brazilian municipalities, investigating its association with sociodemographic determinants to better understand the social context and spread of the epidemic in Brazil.	Social inequality increased the risk of COVID-19 infection in municipalities, so that those with better social development were associated with lower risk of infection. Greater access to health services improved diagnosis and notification. Despite universal susceptibility to the virus, groups with greater social vulnerability were more exposed to the risk of becoming ill.
3) "O protagonismo indígena no contexto da insegurança alimentar em tempos de covid-19"	Leite and collaborators; 2020 ¹⁶	SciELO	Reflection paper	To present preliminary reflections on food insecurity and Indigenous leadership during the COVID-19 pandemic.	The pandemic has deepened the inequities that affect Indigenous populations, directly impacting food security due to the difficulty in accessing food. Amid the effects of the pandemic, Indigenous leadership was essential to ensure their rights and access to food, as well as to denounce the absence and slowness of official responses as acts of institutional violence.
4) "Violência contra idosos durante a pandemia de covid-19 no Brasil: contribuições para seu enfrentamento"	Moraes and collaborators; 2020 ¹⁷	SciELO	Reflection paper	To offer theoretical elements and evidence from previous studies for further understanding of the vulnerability of older adults to situations of violence and possible motivations for the increase in the number of VAOA cases during the COVID-19 pandemic, and to suggest possible strategies for coping with this issue.	Preventive measures to combat the pandemic increased the vulnerability of older adults to violence. The lack of specific policies to face the impacts of the pandemic points to negligence of the public power regarding older adults. The resulting economic crisis and the reduced reach of social support policies contribute to financial abuse against older adults and other forms of violence at home.

continues...

Chart 1. Continuation

Article	Author(s)	Database	Study approach	Objectives	Main results
5) "Reflexões para uma prática em saúde antirracista"	Borret and collaborators; 2020 ¹⁸	LILACS	Essay	To discuss issues involving the Black population, to analyze the vulnerability of this group during the COVID-19 pandemic, to highlight the medical education of Black and brown people, and to reflect on the health care offered to Black people.	The Sars-Cov-2 pandemic made the vulnerability and invisibility of the Black population evident. Technical note No. 11 from the Center for Operations and Health Intelligence (Nois) showed that the mortality rate by COVID-19 among Blacks is always higher than among white people in Brazil. The eight special epidemiological bulletins (BEE) of COVID-19, issued by the Ministry of Health, presented no data regarding the notification of severe acute respiratory syndrome or deaths disaggregated by ethnicity/color; only after social mobilization by Black movements were racialized data included and published.
6) "A (in)visibilidade da criança em vulnerabilidade social e o impacto do novo coronavírus (covid-19)"	Christoffel and collaborators; 2020 ¹⁹	PubMed	Reflection paper	To reflect on the impact of the new coronavirus infection on socially vulnerable Brazilian children, based on the Millennium Sustainable Development Goals.	In Brazil, children and their families find themselves without access to basic rights. The pandemic is likely to worsen the reality for these children with school closures and travel restrictions, disrupting their routines and social support, and causing more stress for parents or guardians who must find new options for home-based childcare instead of school-based activities and food. Marginalization and discrimination of children in socioeconomic exclusion, when related to COVID-19, can make them vulnerable to violence and psychological suffering.
7) "Socio-economic inequalities and COVID-19 incidence and mortality in Brazilian children: a nationwide register-based study"	Martins Filho and collaborators; 2020	PubMed	Nationwide register-based study	To evaluate COVID-19 incidence and mortality in Brazilian children and relate them to socio-economic inequalities in a state-level analysis.	COVID-19 incidence in Brazilian children presented higher estimates in the North and Midwest, whereas mortality rates were higher in the North and Northeast. No clear evidence support the relation between COVID-19 incidence in children and socioeconomic inequality, but mortality rates show correlation with socioeconomic inequality. The pandemic changed educational, social, psychological, and food security activities. Child mortality in high-income countries is extremely rare, but COVID-19 has become a new cause of child death in poorer communities.

Discussion

Our review analysis showed that most methodological approaches were reflexive in nature, which may be explained by the topicality of the theme, and even clarify the few articles identified in the initial research.

For discussing vulnerability, we adapted Rogers and Ballantyne's⁸ definition—the inability to defend one's own interest—to the findings. In the biomedical context, vulnerable individuals or populations are at higher risk of harm due to this inability, especially during health emergencies such as the COVID-19 pandemic.

We organized the results into two categories, based on similarity of content: "vulnerability due to lack of power" and "vulnerability due to stage of human development."

Vulnerability due to lack of power

According to Rogers and Ballantyne⁸, lack of power is an extrinsic vulnerability caused by poverty and the denial of social, economic, and political rights to certain groups. This category encompasses articles 1, 3, and 5, which report the denial of rights to vulnerable groups in Brazil^{14,16,18}, and articles 2 and 7, which describe the socioeconomic inequality that marks the Brazilian population^{15,20}.

Article 1 reflects on the denial of rights to transgender women and *travestis*, showing that most perform informal work and were not contemplated by the emergency government aid¹⁴. Moreover, they face segregation, discrimination, violence, and inequities imposed by biopolitical actions. In this perspective, Martins and Costa²¹ advocate the need for intervention strategies via social practices, counteracting a perverse policy that allows an inhospitable social environment of human rights violations, in which exclusion reduces people to a non-existence.

Intervention bioethics is proposed as a way to circumvent this scenario through State commitment to mediate between power groups and invisible groups. To do so, the ethical debate requires an equitable approach aiming to eliminate societal (in) differences and strengthen transgender rights²¹.

Article 3 points to the decline of public health policies aimed at Indigenous peoples and the loss of social rights, which have affected the right to adequate food guaranteed in the Federal Constitution¹⁶. In Brazil, the pandemic directly impacted food security, forcing Indigenous peoples to actively speak out against a governmental neglect characterized by the denial of rights.

In a report, Iberê²² argues that the arrival of the COVID-19 health crisis was not followed by a plan to contain the pandemic among Indigenous peoples. This dystopia prompted the Indigenous organizations to protect themselves from abusive actions by a State geared to the interests of the financial market.

Liberal measures encouraged by the State contributes to territorial conflicts, which during the pandemic have triggered hunger and lack of drinking water. In this context, Indigenous peoples have carried out campaigns against hunger, relying on solidarity actions and donations²³. Such acts resulted in Law 14.021/2020²⁴ being sanctioned, which establishes social protection measures in Indigenous territories and creates the *Plano Emergencial para Enfrentamento à covid-19 para povos originários e comunidades tradicionais* [Emergency Plan to Combat COVID-19 for Indigenous peoples and traditional communities], foreseeing actions to ensure food security²⁴.

Article 5 highlights the invisibility of the Black population during the pandemic, substantiating the denial of rights to this population¹⁸. The higher mortality experienced by the Black community was only notified in the information systems after mobilization by Black movements. Goes, Ramos, and Ferreira²⁵ also discussed racism under the COVID-19 pandemic, demonstrating that in the United States and Brazil, the Black population is among those who are more likely to get ill and die.

The denial of rights for the Black population has historical roots in Brazil, and the lack of data hinders analyzing racial inequalities. However, the pandemic can give rise to a new social consciousness, one that disrupts racial subalternity and democratically reaffirms the right to life²⁵.

Articles 2 and 7 address socioeconomic inequalities as an expression of vulnerability due to lack of power^{15,20}. In this regard, a study by Romero and Silva²⁶ found a correlation between socioeconomic conditions and COVID-19 incidence in Ceará, citing studies in which good socioeconomic conditions were related to reduced COVID-19 cases.

Natividade and collaborators²⁷ observed a scenario of social inequality and income concentration in the capital of Bahia that can motivate low adherence to social distancing measures. Many work in the informal market, which limits the conditions of protection for workers, who risk exposure to ensure their own survival and may have their physical and psychological health affected by social distancing.

Vulnerability due to stage of human development

According to Rogers and Ballantyne⁸, life cycles, especially its age extremes, make up intrinsic vulnerability. Morais and Monteiro²⁸ relate intrinsic vulnerability to human dignity, which must be safeguarded through the protection of physical, psychic, and moral integrity.

This category encompasses articles 4 and 6, which describe the intrinsic vulnerability experienced by children and older adults—groups that usually require aid in developing their activities—during the COVID-19 pandemic^{17,19}.

Article 4 reflects on the increased violence suffered by older adults during COVID-19. Ribeiro and collaborators⁵ emphasize the effects that social distancing brings to older adults who need professional care, whether living alone or with their families, or those who live in long-term care institutions. The authors recognized several forms of domestic violence.

Domestic violence can be patrimonial, psychological, physical, or manifest as neglect and abandonment—factors that can even be concomitant. When experienced in a family environment, victims usually suffers in silence due to their dependence relationship, and the insecurity and fear caused by their proximity to the aggressor^{24,29}.

Article 6 reflects on children during pandemic scenarios, without school activities and no access to

food, and therefore exposed to hunger and violence in their homes¹⁹. Children are hardly affected directly by COVID-19, but the isolation measures have affected those living in poorer households. School closures mainly harms those who find in school meals their only source of healthy food³⁰.

The increase in domestic violence against children during social distancing reflects the challenge of protecting them, a task they cannot face alone. Confinement-related stress tends to increase drug and alcohol consumption in these families, contributing to an increase in domestic conflicts.

The home should be the safest place for children, but in many moments it becomes a sad environment where they suffer various forms of violence. During social distancing due to the pandemic, society must be alert and notify suspected cases, thus contributing to the rapid care and protection of victims³¹.

The COVID-19 pandemic has highlighted and aggravated cases of pre-existing violence due to the need for travel restrictions. Many people find themselves working remotely or unable to work, needing to reconcile their new routine with that of children and older adults, who end up in situations of family violence resulting from the structural violence that permeates Brazil²⁹.

Social responsibility, such as health, goes beyond State accountability in the form of public policies; it requires national and international social strategies aiming to reduce inequalities and promote the well-being of vulnerable populations.

Individuals must be addressed in their totality, within a bioethics of rights and duties: they must be seen as subjects, not as the objects of diseases or disabilities³¹. Thus, bioethics goes beyond the limits of research ethics and seeks human dignity for all people and social groups, especially the most vulnerable, through an ethics of care and social responsibility.

Final considerations

The vulnerabilities identified by this study are linked to the fragility experienced by much of the Brazilian population throughout the history of their interpersonal, social, and health relations. An experience intensified by the

COVID-19 pandemic. Some studies analyzed refer to individuals who require specific care due to their age, pointing to the need of considering life cycles when developing preventive actions.

Besides intrinsic vulnerabilities, we also identified extrinsic vulnerabilities due to unfavorable power relations. All these experiences are beyond the scope of our study, since Brazil is home to numerous vulnerable groups and the specialized literature is still incipient.

We thus recognize the limitations of this research, reinforcing the importance of greater attention from state officials to the Brazilian population in a scenario that enhances existing vulnerabilities. Finally, the need to further study this topic is noted. Despite these limitations, as a potentiality, we identify the need for active intervention by the responsible agents, going beyond the state responsibility and recognizing a social care ethics under a bioethics perspective.

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Participation of the authors

Pettra Blanco Lira Matos, Russell Santiago Correa, and Dimitra Castelo Branco outlined the study and performed the collection, analysis, and interpretation of data. Gabriel Mácola de Almeida carried out a full review of the manuscript and formatted it according to the rules of the journal. Érica Quinaglia Silva and Liliane Silva do Nascimento advised the research and brought the bioethics reflections and issues. All authors worked on the final revision of the text to be published.

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Erratum

In the article “Vulnerabilities highlighted by the COVID-19 pandemic from a bioethics perspective”, DOI 10.1590/1983-80422022304580EN, in *Revista Bioética* published in volume 30, number 4 of 2022, page 900, there is the absence of one of the affiliations of the author Érica Quinaglia Silva:

Where it reads:

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It should read:

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