Review

An Outlook on Global Research into Female Unemployment during the Covid-19 Pandemic*

[English Version]

Una mirada a la investigación mundial sobre desempleo femenino durante la pandemia Covid-19

Um olhar sobre a pesquisa mundial acerca do desemprego feminino durante a pandemia de Covid-19

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Abstract

Objective: To provide a review and bibliometric analysis of global research on female unemployment during the Covid-19 pandemic, with the aim of identifying its evolution and determining predominant trends. **Methodology:** Using the Scopus database, documents relevant to the topic were selected and subsequently processed through bibliometric tools such as Tree of Science (ToS), Bibliometrix, and Gephi. **Results:** The

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most influential countries, journals, authors, and documents related to the topic were identified. The documents were classified into three groups based on the "tree of science" metaphor: classical/seminal works, structural contributions, and perspectives. This latter group revealed current research trends in studies on female unemployment in the context of the pandemic. **Conclusions:** Female unemployment experienced a marked increase during the Covid-19 pandemic, intensifying the challenges faced by this population. Furthermore, the findings show that mental health, gender inequality, and socioeconomic repercussions have become central axes in the field's research agenda.

Keywords: mental health; social inequality; Covid-19; women's employment; labor market (obtained from the UNESCO Thesaurus).

Resumen

Objetivo: ofrecer una revisión y análisis bibliométrico de la investigación a nivel mundial en desempleo femenino durante la pandemia de Covid-19, con el propósito de determinar su evolución e identificar tendencias predominantes. **Metodología:** utilizando la base de datos Scopus, se seleccionaron documentos pertinentes al tema; posteriormente, se procesaron mediante herramientas bibliométricas como *Tree of Science (ToS)*, *Bibliometrix y Gephi*. **Resultados:** se determinaron los países, revistas, autores y documentos más destacados con relación al tema. Los documentos se categorizaron en tres grupos con base en la metáfora del «árbol de la ciencia»: trabajos clásicos/seminales, estructurales y perspectivas. Este último grupo reveló las tendencias actuales en la investigación del desempleo femenino en el contexto de la pandemia. **Conclusiones:** el desempleo femenino experimentó un marcado incremento durante la pandemia de Covid-19, que intensificó los desafíos para esta población. Además, se evidencia que la salud mental, la desigualdad de género y las repercusiones socioeconómicas se consolidan como ejes centrales en la investigación del campo.

Palabras clave: salud mental; desigualdad social; Covid-19; empleo de las mujeres; mercado de trabajo (obtenidos del tesauro UNESCO).

Resumo

Objetivo: oferecer uma revisão e análise bibliométrica da pesquisa mundial sobre o desemprego feminino durante a pandemia de Covid-19, com o propósito de identificar sua evolução e determinar as tendências predominantes. **Metodologia:** utilizando a base de dados Scopus, selecionaram-se documentos pertinentes ao tema, que posteriormente foram processados por meio de ferramentas bibliométricas como Tree of Science (ToS), Bibliometrix e Gephi. **Resultados:** identificaram-se os países, revistas, autores e documentos mais influentes relacionados ao tema. Os documentos foram categorizados em três grupos com base na metáfora da "árvore da ciência": trabalhos clássicos/seminais, contribuições estruturais e perspectivas. Este último grupo revelou as tendências atuais da pesquisa sobre desemprego feminino no contexto da pandemia. **Conclusões:** o desemprego feminino apresentou um aumento significativo durante a pandemia de Covid-19, intensificando os desafios enfrentados por essa população. Além disso, evidencia-se que a saúde mental, a desigualdade de gênero e as repercussões socioeconômicas consolidam-se como eixos centrais na agenda de pesquisa da área.

Palavras-chave: saúde mental; desigualdade social; Covid-19; emprego das mulheres; mercado de trabalho (obtidos do tesauro UNESCO).

Introduction

The Covid-19 pandemic caused unprecedented disruptions in the global labor market, affecting both formal and informal sectors; in particular, women's employability experienced a significant decline (Marconatto *et al.*, 2022; Ortiz & Rodríguez, 2022). Alongside rising unemployment rates, the crisis not only destabilized the economy but also disrupted mental well-being, intensifying anxiety, loneliness, and stress within households (Oliveira *et al.*, 2023).

This economic shock amplified hardships in households where women are the primary providers, further hindering socioeconomic progress and heightening uncertainty (Chitiga *et al.*, 2022; Katris, 2021). Additionally, unemployment exacerbated existing problems such as inequality, poverty, and hunger, trapping women in a vicious cycle of disadvantages; ranging from limited educational and financial opportunities to reduced chances of accessing leadership roles or managing their own businesses (Ronaghi & Scorsone, 2023; Schippers *et al.*, 2022).

Nevertheless, the crisis has also shed light on deeply rooted gender inequalities that persist in society (Tusińska, 2021). Although the pandemic introduced changes to the labor landscape, such as flexible schedules and remote work, these have also triggered new challenges related to inequality and working conditions (Mazzucchelli *et al.*, 2022). Thus, while society faces the challenges generated by the pandemic, these are particularly acute for women, as they compound pre-existing gender issues (Khan *et al.*, 2023).

Despite the undeniable relevance of female unemployment during the pandemic, no literature review specifically addressing this topic has yet been identified. It is within this context that the present study seeks to fill this gap. Although some related approaches have emerged, they have examined tangential themes: a bibliometric analysis of decent work in the context of Covid-19 (Anholon *et al.*, 2022), a bibliometric study on youth unemployment (Ralph & Arora, 2022), a review of labor inequalities among ethnic minority workers in the British health and social care sectors during the pandemic (Hussein, 2022), and an examination of the pandemic's impact on the health of those in precarious employment (McNamara *et al.*, 2021).

To address this gap, the present study offers a bibliometric review and analysis of global research on female unemployment during the Covid-19 pandemic, using scientific mapping techniques and tools such as R-Studio, Bibliometrix, and Tree of Science (ToS). In addition, data extracted from the Scopus database are analyzed to determine its evolution and identify prevailing trends.

The structure of this article is divided into four sections. The first explains the methodology used in the search for documents and research records; the

second presents the theoretical approach; the third carries out the bibliometric and network analysis. Finally, the conclusions, limitations, and future research agenda are presented.

Methodology

The development of this study is grounded in a scientific mapping approach, which employs bibliometric tools to analyze the structure, patterns, and trends of a field of knowledge (Chen, 2017; Leydesdorff, 1987; Noyons *et al.*, 1999). Accordingly, various analytical methods are used, including indicators and metrics in publication statistics (author, country, institution, journal) (Zupic & Čater, 2015), as well as co-citation, author, document, and country networks (Herman *et al.*, 2000). In addition, the most relevant documents are identified and classified using the Tree of Science (ToS) metaphor (Robledo *et al.*, 2022; Valencia-Hernández *et al.*, 2020).

Data Selection

To conduct this investigation on female unemployment and Covid-19, a search was performed in the Scopus database, which is considered one of the most important worldwide (Martín-Martín *et al.*, 2018; Pranckutė, 2021). The search equation used was: ((\"unemployment\") AND (\"female\" OR \"woman\" OR \"women\") AND (“covid\" OR \"pandem*\")), yielding 1,154 records containing these terms in their title, abstract, or keywords. The search was conducted on June 3, 2023.

Processing, Analysis, and Visualization

Tools such as Bibliometrix (Aria & Cuccurullo, 2017), Tree of Science (ToS) (Robledo *et al.*, 2022; Valencia-Hernández *et al.*, 2020), and Gephi (Mathieu *et al.*, 2009) were employed. Bibliometrix is a free tool integrated into R-Studio and offers a wide range of functionalities for bibliometric analysis (Aria *et al.*, 2020), making it one of the most widely used tools for studies of this type (Duque *et al.*, 2021b; Duque & Oliva, 2022; Homolak *et al.*, 2020; Díaz *et al.*, 2023a; Barrera *et al.*, 2022).

ToS was also employed. This application, based on graph theory, is used to extract database references and construct a co-citation network of documents.

It enables the analysis of bibliometric metrics, such as citation and co-citation indicators, in order to identify and classify the most relevant documents in the field. Moreover, it allows classification of the most influential works through the metaphorical framework of the Tree of Science. This tool has been validated and applied in various prior studies (Giraldo *et al.*, 2022; Grisales *et al.*, 2023; Hoyos *et al.*, 2022; Loaiza *et al.*, 2022; Robledo-Giraldo *et al.*, 2023; Torres *et al.*, 2022).

To visualize the network constructed with ToS, the Gephi tool is used (Mathieu *et al.*, 2009), which allows interaction with the network data and with each document included in it. This makes it possible to understand how a research area evolves. Furthermore, Gephi is an open-source, freely accessible tool widely used in similar studies (Clavijo-Tapia *et al.*, 2021; Donthu *et al.*, 2020; Jacomy *et al.*, 2014; Meier, 2020; Díaz *et al.*, 2023b).

Following this procedure, documents are classified into three categories: roots (seminal documents), trunk (structural documents), and branches (perspectives or clusters). This categorization enables an understanding of the theoretical evolution of a field of knowledge. This methodology has been applied successfully in previous research and has proven effective in identifying trends across multiple areas (Duque *et al.*, 2021a; Hoyos *et al.*, 2023; Hurtado & Ortíz, 2022; Díaz *et al.*, 2023a; Robledo *et al.*, 2023; Trejos-Salazar *et al.*, 2021).

Results

Bibliometric Analysis

Country Analysis.

Table 1 presents the countries that contribute most to research on the topic under study, based on data retrieved from Scopus. The United States is identified as the country with the highest number of publications, with 417 documents, representing 43.12%. It is followed by the United Kingdom with 118 publications, corresponding to 12.20%. Notably, 48.29% of the publications come from the American continent; 33.40% from Europe; 14.37% from Asia; and, finally, 3.93% from Africa. The studies with the greatest contribution to the topic are published in English and Spanish.

Table 1. *Publications by Country.*

Country/Region	Number of Publications	% of Total
United States	417	43%
United Kingdom	118	12%
Australia	70	7%
China	57	5%
Canada	50	5%
India	49	5%
Italy	48	4%
Spain	48	4%
Germany	39	4%
South Africa	38	4%
Japan	33	3%

In addition, the country collaboration network (Figure 1) shows that countries with the lowest participation in the topic include Saudi Arabia (3.5%), Belgium (2.44%), and Bangladesh (2.3%). It is worth noting that Colombia participates in collaboration networks on this topic with countries such as the Democratic Republic of the Congo, Costa Rica, the Dominican Republic, Guatemala, Honduras, and Sierra Leone.

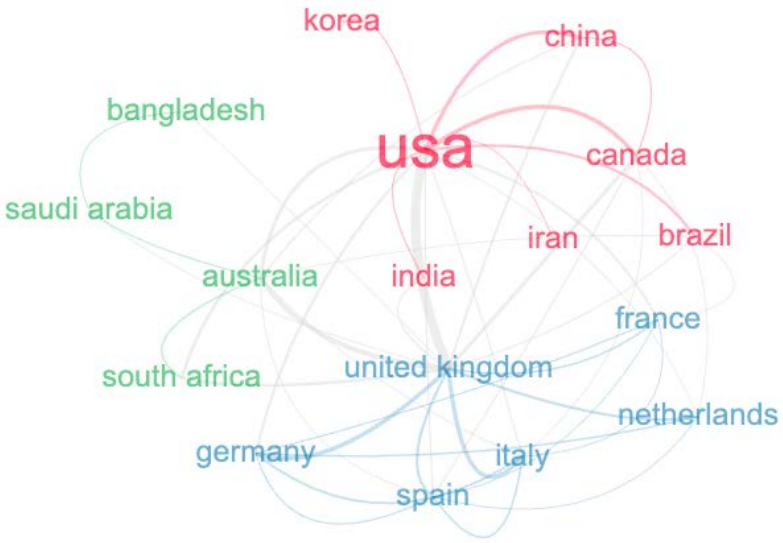

Figure 1. *Country Collaboration Network.*

Journal Analysis.

Table 2 lists the ten most important journals on the topic of study, along with the highest number of published documents. These records were likewise retrieved from the Scopus database. The table displays the number of publications, the country of origin of each journal, its h-index, quartile, and the 2022 SJR indicator (information sourced from Scimago). The *International Journal of Environmental Research and Public Health*, published in Switzerland, has 94 publications, an h-index of 167, and is ranked in quartile Q2; it contributes 8.5% of the total publications, making it the most prominent journal. However, it is worth highlighting that *PLOS ONE*, based in the United States, has the highest h-index (404) and is classified in quartile Q1, making it an outstanding journal in this field. It is also important to note that 90% of the journals belong to quartile Q1, indicating that they generate high-impact research despite having fewer publications.

Table 2. *Leading Journals.*

Journal	Number of Publications	*h-index*	Quartile	SJR 2022	Country
International Journal of Environmental Research and Public Health	94	167	Q2	0.83	Switzerland
Plos One	50	404	Q1	0.89	United States
BMJ Open	29	139	Q1	106	United Kingdom
Frontiers in Psychiatry	22	96	Q1	1.22	Switzerland
Jama Network Open	16	106	Q1	4.11	United States
Journal of Affective Disorders	14	217	Q1	1.99	Netherlands
Psychiatry Research	13	159	Q1	2.14	Ireland
Nutrients	11	178	Q1	1.29	Switzerland
Journal of Clinical Medicine	10	95	Q1	0.94	Switzerland
SSM Population Health	10	41	Q1	1.79	United Kingdom

Author Analysis.

Table 3 presents the authors with the highest relevance in publications on the topic indexed in Scopus. It includes the number of publications, the h-index, and citation counts for each author. The table shows that most authors have four publications. The most cited author is Ichiro Kawachi, with 183,113 citations. He is a Professor of Social Epidemiology at the Harvard T.H. Chan School of Public Health and also holds the highest h-index (191). The second-most influential author is Xhien Chen from the National University of Singapore, with an h-index of 80 and 24,500 citations. Likewise, authors Agyapong and Allen have the same number of publications.

Table 3. *Leading Authors in Scopus.*

Author	Number of Publications	*h-index*	Number of Citations
Chen, Xhien	4	80	24.500
Fancourt, Daisy	4	57	12.766
Kawachi, Ichiro	4	191	183.113
Matsuda, Seiichi	4	45	6.508
Nagata, Toshi	4	44	7.070
Shen, M.	4	74	22.864
Tateishi, Soichiro	4	59	2.354
Tsuji, Moriya	4	58	12.028
Agyapong, VIO	3	31	2.939
Allen, J.D.	3	25	3.941

Network Analysis.

Figures 2 and 3 present two visualizations: one illustrating the collaboration network and the other depicting the co-citation network. As noted earlier, the data were obtained from Scopus and the networks were generated using the Bibliometrix tool.

A prior selection was made of the most cited authors, reflected in the size of their names in the network graphs, which corresponds to their number of publications and scholarly output. Similarly, it is evident that the Americas constitute the region with the highest concentration of research contributions on the topic.

Figure 2. *Authors network.*

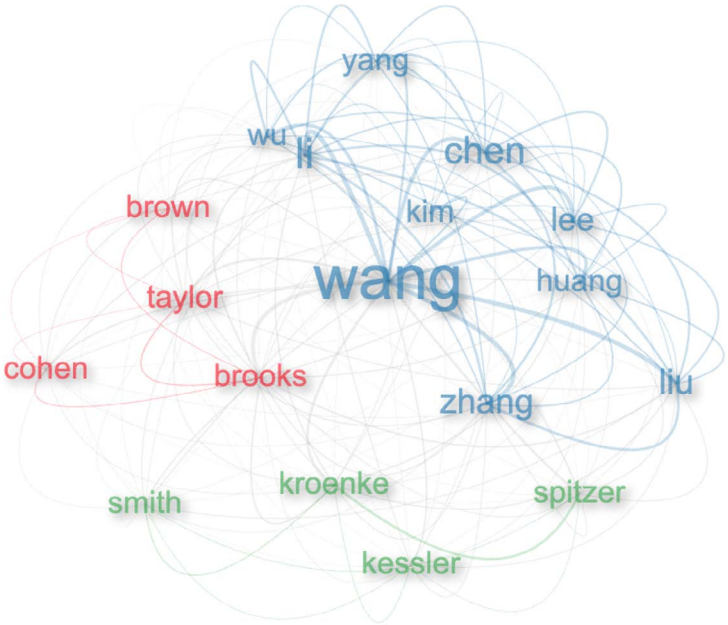

Figure 3. *Authors' Co-citation Network.*

Tree of Science Analysis

To conduct this analysis, the metaphor of the Tree of Science (ToS) was applied, allowing for the classification of the most influential documents in the field. These documents were grouped into three categories based on their theoretical and conceptual contribution: Roots (classics), foundational works that provide the core theoretical basis; trunk (structural documents), studies that consolidate and develop the field, connecting foundational and current perspectives; and branches (perspectives), recent or emerging works that extend, diversify, or challenge existing lines of research. These components, previously examined in detail, are visually represented in Figure 4.

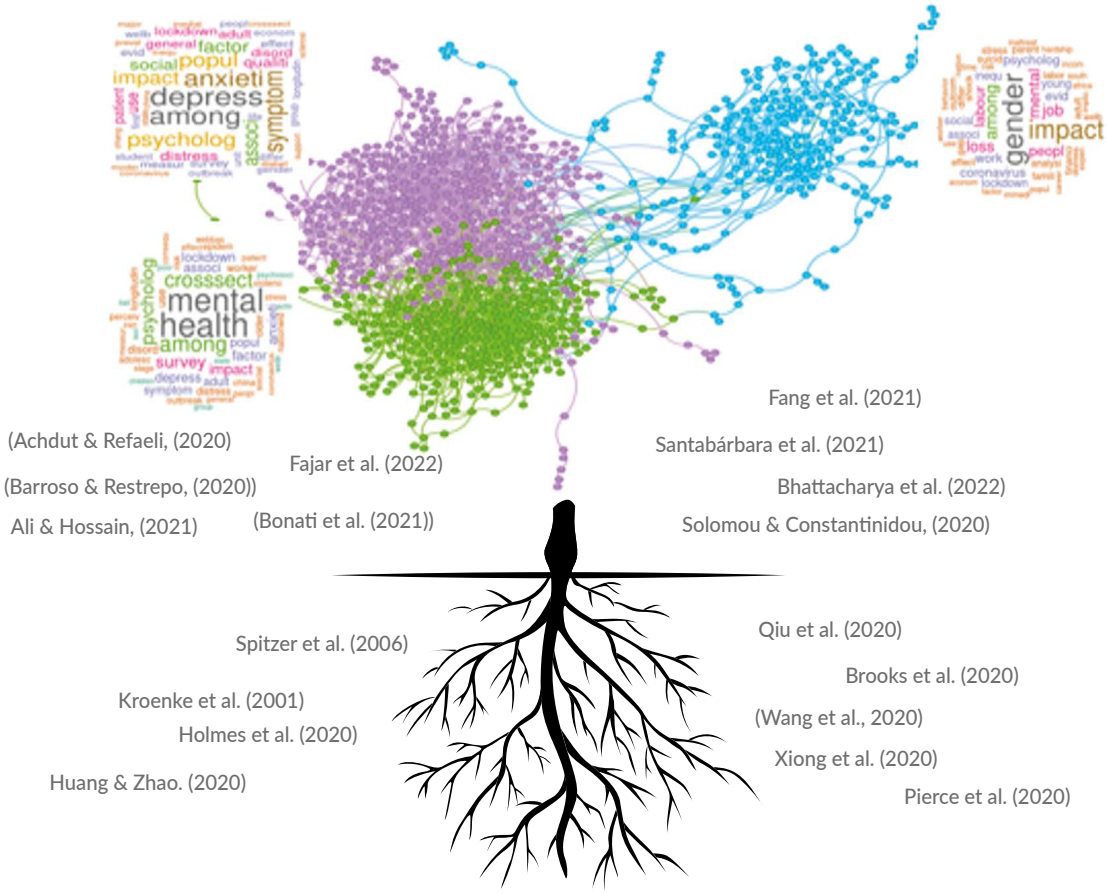

Figure 4. *Tree of Female Unemployment.*

Seminal Documents (Root).

This section highlights the most influential and foundational documents related to research on female unemployment during and after the Covid-19 pandemic. The analysis shows how the challenges generated by the pandemic intensified psychological, emotional, and affective disorders —including diminished self-esteem— among other impacts. These effects were strongly reflected across society, influencing both labor market dynamics and public health.

The psychological impact produced by the Covid-19 pandemic and the associated quarantine measures triggered a series of adverse outcomes such as stress, exhaustion, irritability, indecision, uncertainty, detachment, lack of concentration, and a decline in work performance. This scenario resulted in widespread reluctance to work, which subsequently led to contract suspensions, mass layoffs, and rising unemployment (Kroenke *et al.*, 2001; Brooks *et al.*, 2020).

Moreover, many of the consequences stemming not only from the pandemic but also from mandatory isolation and physical and social distancing are directly associated with risk factors and health problems. These include suicide, self-harm, alcohol and psychoactive substance abuse, domestic violence, excessive work burden, financial stress, grief, loss, unemployment, homelessness, and relationship breakdown (Holmes *et al.*, 2020).

At the same time, Covid-19 had a significant impact on global economic indicators and unemployment rates, which experienced a marked increase. This situation posed a threat to national economies, as people affected by job loss developed heightened levels of anxiety, stress, and psychiatric symptoms (Xiong *et al.*, 2020).

Furthermore, the worldwide spread of the virus had a disproportionately strong effect on young people and women compared with the rest of the population. This was largely due to rising unemployment and the resulting psychological distress; factors that have intensified concerns regarding mental health, an area of particular focus for the World Health Organization (WHO) (Pierce *et al.* 2020).

Drawing again on the study by (Brooks *et al.* 2020), most research reported negative psychological effects, identifying stress, frustration, financial losses, unemployment, and fear of Covid-19 infection as the most alarming factors for society. Likewise, psychological distress, panic disorders, and depression have created heightened vulnerability among women and migrant workers, particularly as confinement measures led to soaring unemployment rates. Strict and unprecedented public-health measures significantly affected daily life worldwide, especially in employment and education (Qiu *et al.*, 2020). The study's findings also help clarify the extent of psychological impact, revealing that women exhibited the highest percentage of symptoms and elevated levels of depression, anxiety, stress, and consequently, unemployment (Wang *et al.*, 2020). Going forward,

special attention should be paid to vulnerable groups such as young people, older adults, women, and migrant workers.

Structural Documents (Trunk).

This section highlights the structural studies that examine unemployment, gender inequality, mental health, Covid-19, and its treatment. These investigations are among the most recent in the field and provide insight into how these factors profoundly affect individuals' well-being.

Long-term unemployment resulting from the pandemic has produced severe consequences, with young people and women being the most negatively impacted in terms of mental health. Having to leave their jobs or studies, combined with worsening personal circumstances, increases psychological risk (Achdut & Refaeli, 2020). This study also analyzes the differential impact between men and women in the labor market, clearly showing that women are disproportionately affected. Reductions in working hours or complete job loss are common, although gender inequalities in employment existed even before Covid-19 (Ramos & Bolívar, 2020).

Regarding Covid-19 treatment, research has assessed the validity of vaccination. Individuals who expressed doubts or lack of confidence in the vaccine tended to have lower educational levels, were unemployed, or were female heads of household (Fajar *et al.*, 2022). A survey showed that 32.5% of respondents were hesitant about the vaccine due to uncertainty surrounding government and WHO communications; moreover, low-income populations and unemployed individuals expressed skepticism about its effectiveness (Ali & Hossain, 2021). Covid-19 vaccination awareness studies aim to provide communities with clear information, promote virus mitigation, evaluate the effectiveness of preventive measures, and emphasize the importance of vaccines in low- and middle-income countries (Bhattacharya *et al.*, 2022).

Santabárbara *et al.* (2021) found that key risk factors associated with the development of anxiety included the initial or peak phase of the outbreak, female gender, younger age, marital status, social isolation, unemployment, education levels, access to credit, lack of knowledge about the virus, and certain lifestyle and personality traits. Psychological experiences during lockdown also produced adverse consequences for women heading households and caring for young children. Job loss, self-employment, and informal work made the situation especially difficult during the pandemic (Bonati *et al.*, 2021).

Additionally, unemployment driven by strict mobility and social-distancing regulations most heavily affected women aged 18-29, who experienced a decline

in quality of life along with higher levels of depression and anxiety (Solomou & Constantinidou, 2020).

Perspectives (Branches).

Perspective 1: Unemployment and Psychological Impact. This perspective includes studies related to the psychological effects of the pandemic, gender inequalities in unemployment, and, in some cases, evidence of psychological support and improvements in general well-being.

From a sociocultural standpoint, the psychological impact of a global health crisis such as Covid-19 generated widespread negative effects, including depression, stress, and anxiety (Wang *et al.*, 2020). Generalized anxiety disorder (GAD) and sleep disturbances highlighted the need to prioritize mental-health support to ensure population well-being (Huang & Zhao, 2020). These risk factors disproportionately affected women and young students, underscoring the need for public-policy strategies to reduce negative mental-health outcomes and provide psychological support (Xiong *et al.*, 2020).

Feelings of loneliness increased among people with disabilities during the pandemic, reducing quality of life and heightening psychological vulnerability (Holm *et al.*, 2023). Unemployment was linked to anxiety symptoms, revealing the vulnerability of affected populations and stressing the need to implement policies promoting mental-health assistance during and after the pandemic, with special support for disadvantaged socioeconomic groups (Reme *et al.*, 2022).

Psychological disorders intensified during the pandemic (Yusuf *et al.*, 2022). Young people now face greater risk of major depressive disorder (MDD), with loneliness, low resilience, and financial hardship acting as key contributing factors (Gabarrell-Pascuet *et al.*, 2023). Women experienced a heavier psychological burden due to unemployment, income loss, and fewer opportunities, widening mental-health disparities. Policies supporting equitable employment opportunities and financial stability are crucial (Hwang & Shin, 2023). Enhancing social support in the workplace can strengthen industry sustainability and recovery by reducing stress and improving overall well-being (Liu *et al.*, 2023).

Perspective 2: Mental Health. This perspective examines mental health during and after the pandemic, psychological well-being, medium- and long-term strategies, and coping and psychosocial support in the workplace.

The literature includes studies addressing psychological, social, and neuroscientific effects (Holmes *et al.*, 2020). Mental-health burdens increased, especially among frontline female nurses, stressing the need to protect their psychological well-being (Lai *et al.*, 2020). Quarantine measures triggered psychological distress,

panic disorders, anxiety, depression, and stress, all of which require clinical attention and support (Qiu *et al.*, 2020).

Adverse consequences for mental health were also observed (Bonati *et al.*, 2021). Patients with bipolar disorder exhibited significantly higher levels of anxiety, stress, and depression during the pandemic (Li *et al.*, 2022). Job loss was shown to indirectly intensify these symptoms, underscoring the need for medium- and long-term strategies centered on population mental health and well-being (Parra *et al.*, 2023).

The pandemic produced a profound mental-health effect, with sociodemographic factors influencing psychological trauma; post-traumatic stress disorder affected up to 12.4% of respondents (Cao *et al.*, 2022). Psychosocial working conditions deteriorated, with emotional exhaustion becoming a critical and difficult-to-manage issue among employees (van Elk *et al.*, 2023). Entrepreneurs faced limited resources, high levels of depression, and the difficult decision to exit the market (Hussain & Li, 2022). Despite these negative impacts, the pandemic fostered resilience and motivated coping strategies and psychological-support seeking (Jiang *et al.*, 2022).

Perspective 3: Gender Inequality. This perspective documents gender inequality, job loss, and challenges and alternatives for mitigating negative effects during and after Covid-19.

Gender inequalities have been historically evident across countries. During the Covid-19 crisis, women and workers with lower educational levels were the most negatively affected, facing job loss and reduced income (Adams-Prassl *et al.*, 2020). Women bore a heavier burden and experienced greater psychological distress due to higher probabilities of unemployment or reduced working hours (Zamarro & Prados, 2021). The pandemic reinforced structural gender inequalities, making it imperative to address them, ensure fair labor distribution, and explore alternative economic systems to support women and their families (Power, 2020).

Economic recession triggered by the pandemic also resulted in job losses among Black communities, underscoring structural inequalities and the importance of supportive policies (Holder *et al.*, 2021). Households with limited resources suffered reduced food and health security, increasing the risks of depression and anxiety (Bottan *et al.*, 2020). Both women and men faced restrictions in job opportunities, labor participation, and career advancement (Heggeness, 2020).

To mitigate these negative impacts, it is crucial to address issues such as job loss, low or middle incomes, and mental-health concerns (Umucu *et al.*, 2022). Promoting labor equality during and after the pandemic is essential, as reduced working hours, job losses, and rising unemployment disproportionately affected women (Guven *et al.*, 2023). Addressing workplace gender inequalities is key to

fostering equitable and inclusive recovery (Mazzucchelli *et al.*, 2022). Similarly, exploring techniques to moderate employment shifts and redistribute labor between men and women is vital for the future (Doorley *et al.*, 2022).

Conclusions

The findings suggest that female unemployment grew exponentially during the pandemic period, revealing the structural inequities that persist in the labor market. In this sense, the women most affected were those in situations of vulnerability, who experienced greater job loss, an increased burden of domestic and unpaid work, and, consequently, heightened psychological strain and economic instability. Within this context, mental health, gender inequality, and socioeconomic repercussions emerge as transversal themes in the academic production of the period analyzed.

The results stemming from the Tree of Science analysis enabled the structuring of the problem at three levels. A growing concern was revealed regarding the psychosocial consequences generated by female unemployment, the widening barriers to accessing formal employment, and the absence of clear gender-focused public policies. For this reason, recent studies have tended to examine the relationship between mental health and working conditions, as well as the gender-differentiated effects of precariousness, poverty, and insecurity.

Furthermore, the bibliometric analysis showed a notable geographical concentration of scientific production in countries of the Global North. This underscores the need to foster research from Latin American, African, and Asian contexts, where gender gaps tend to be more pronounced and labor dynamics are often more informal.

Ultimately, this study not only fulfills its objective of mapping and analyzing the state of the art on female unemployment during the Covid-19 pandemic, but also provides a conceptual and empirical framework to guide future research. Likewise, it offers key inputs for designing public policies and economic recovery strategies that place gender equity, mental health, and social justice as fundamental pillars in the post-pandemic context.

Limitations and Recommendations

Future studies are encouraged to incorporate additional databases such as WoS and Springer to broaden the scope of information on female unemployment during and after Covid-19, as the present study relied exclusively on Scopus. It is also considered important to extend the time frame, as only documents from 2000–2023 were included.

Finally, it is recommended that future research employ alternative analytical tools capable of generating different types of data and evaluations, given that this article used only R-Studio, Bibliometrix, and ToS; tools that, while widely accepted by the scientific community, could be complemented with additional methodologies.

Research Agenda

The following topics illustrate research areas that should be addressed in future studies on female unemployment, particularly in crisis contexts such as the Covid-19 pandemic. These topics focus on deepening the understanding of the relationship between unemployment and psychological impact (Yusuf *et al.*, 2022). It is essential to further explore this problem in order to propose strategies to mitigate the effects of these conditions on women's emotional well-being, especially regarding variables such as socioeconomic status, age, and religious beliefs (Hwang & Shin, 2023).

In this direction, it is recommended to track the socioeconomic factors associated with depressive symptoms among young women, considering elements such as social isolation, social support, and resilience. Additionally, it is important to examine women's workplace well-being and the relationship between social support and occupational stress, taking into account variables such as work experience and job position (Liu *et al.*, 2023).

It is also crucial to deepen the analysis of psychological trauma inequalities experienced by low-income populations, as well as to evaluate compliance with preventive measures that may have affected mental health (Lewańczyk *et al.*, 2023). Parallel to this, future research should explore specific working conditions —such as workload and organizational support— and their association with well-being indicators such as sleep quality, mental health, and job satisfaction (van Elk *et al.*, 2023).

A core topic in the future research agenda is the intersection between unemployment and gender inequality. In this regard, it is advisable to initially examine pre-existing structural inequalities that limit women's access to labor opportunities (Guven *et al.*, 2023), analyzing wage gaps, career progression, promotion patterns, and employment opportunities at both national and international levels. This includes assessing mechanisms for the equitable redistribution of jobs and salary ranges, as well as gendered labor patterns (Doorley *et al.*, 2022).

Finally, it is necessary to develop studies that propose targeted public policies to mitigate the effects of job loss during economic crises, to protect mental health, and to ensure equitable access to financial resources. These strategies should aim to strengthen individual and collective resilience, promote decent working conditions, and support an inclusive and sustainable economic recovery with a clear gender perspective (Umucu *et al.*, 2022).

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