saúde EM DEBATE

REVIEW

Performance of Brazilian and English PHC during the COVID-19 pandemic: A scoping review

Desempenho da APS brasileira e inglesa durante a pandemia de covid-19: uma revisão de escopo

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ABSTRACT This study aimed to map the available evidence on the performance of Primary Health Care (PHC) in the Brazilian Unified Health System (SUS), compared to the National Health Service (NHS) in England, focusing on the work process during the COVID-19 pandemic, as well as to identify knowledge gaps. A scoping review was conducted, based on the JBI methodology, with searches in the PubMed, LILACS, Scopus, Cinahl, Embase, and Web of Science databases, in June 2024. Studies in Portuguese, English and Spanish were included, according to the PCC (Population, Concept and Context) strategy. Study selection was conducted by three reviewers, with the support of EndNote and Rayyan software. Overall, 34 studies were analyzed. The findings indicate that the pandemic significantly affected the PHC work process. In both systems, priority was given to caring for patients with respiratory symptoms, reducing routine activities and de-characterizing PHC attributes. In the NHS, the centrality of GPs, expansion of telehealth, and greater structural capacity stood out; in SUS, multi-professional action was limited by technological weaknesses and lack of national coordination. It was also noted a lack of studies on Ambulatory Care Sensitive Conditions and health financing, indicating the need for future investigations exploring the effects of the pandemic from a comparative perspective.

KEYWORDS COVID-19. Primary Health Care. Health systems. Unified Health System. State medicine.

RESUMO *Este estudo teve como objetivo mapear as evidências disponíveis sobre o desempenho da Atenção Primária à Saúde (APS) no Sistema Único de Saúde (SUS), em comparação com o National Health Service (NHS) da Inglaterra, com foco no processo de trabalho durante a pandemia de covid-19, bem como identificar lacunas de conhecimento. Realizou-se uma revisão de escopo, baseada na metodologia JBI, com buscas nas bases PubMed, Lilacs, Scopus, Cinahl, Embase e Web of Science, em junho de 2024. Foram incluídos estudos em português, inglês e espanhol, segundo a estratégia PCC (População, Conceito e Contexto). A seleção foi conduzida por três revisores, com apoio dos softwares EndNote e Rayyan. Ao todo, 34 estudos foram analisados. Os achados indicam que a pandemia afetou significativamente o processo de trabalho da APS. Em ambos os sistemas, priorizou-se o atendimento a sintomáticos respiratórios, reduzindo atividades rotineiras e descaracterizando atributos da APS. No NHS, destacaram-se a centralidade dos médicos generalistas, ampliação da Telessaúde e maior capacidade estrutural; no SUS, atuação multiprofissional, limitada por fragilidades tecnológicas e falta de coordenação nacional. Identificou-se, ainda, ausência de estudos sobre Internações por Condições Sensíveis à APS e financiamento, indicando necessidade de investigações futuras que aprofundem efeitos da pandemia em perspectiva comparada.*

PALAVRAS-CHAVE *Covid-19. Atenção Primária à Saúde. Sistemas de saúde. Sistema Único de Saúde. Medicina estatal.*

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Introduction

The COVID-19 pandemic triggered a severe health crisis that exposed weaknesses in global health systems and highlighted challenges in addressing and controlling health emergencies around the world[1,2].

The rapid restructuring required of healthcare systems led to a predominantly hospital-centric response, which neglected the integrality of care and preventive measures – fundamental pillars in tackling the disease[1-3].

In this sense, the international debate on the importance of Primary Health Care (PHC) has been reopened, highlighting its role as the basis for universal health systems and a fundamental mechanism for dealing with health crises, due to its capacity to perform epidemiological surveillance functions, manage mild and moderate cases of disease, and guide care throughout the Health Care Networks (HCNs)[1-3].

Countries have been actively committed to investing in their health systems, focusing on their primary care networks, in order to train professionals to work in all areas of addressing sanitary crises, such as prevention, response, and recovery[4-6].

In Brazil, the Unified Health System (SUS) is a universal, public model supported by comprehensive PHC, but it has faced problems of underfunding and service structuring since its inception. The SUS was inspired by similar health systems, including the English National Health Service (NHS), which serves approximately 57 million people and is considered a pioneering model of universal access to healthcare, raising expectations regarding its capacity to handle health emergencies[1,7,8].

The strategies adopted by the NHS in primary health care during the pandemic offer relevant lessons for other universal systems in the context of a health crisis. Although political, economic, and cultural differences exist between countries, structural elements – such as coverage, funding, and workforce – justify comparisons that, rather than replicating models, seek new perspectives[9,10].

In order to compare the experiences of the SUS and the NHS, a scoping review was conducted to map the available evidence in the literature on the performance of PHC in both systems, focusing on the work process during the COVID-19 pandemic, and seeking to identify knowledge gaps on the subject so that future research can be guided, strengthening PHC in health crisis situations.

Material and methods

This study was conducted in accordance with the JBI Manual for Evidence Synthesis, following the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Protocols for Scoping Reviews (PRISMA-ScR), and whose protocol was previously registered with the Open Science Framework (OSF) in June 2024, under the DOI: https://doi.org/10.17605/OSF.IO/DSCNB[11-13].

The research question that guided this review was: 'What evidence is available in the literature regarding the performance of Primary Health Care (PHC) in relation to the work process in the Brazilian Unified Health System (SUS) compared to the English National Health Service (NHS) during the COVID-19 pandemic?', formulated based on the acronym 'PCC' (Population, Concept and Context): 'P' (SUS and NHS), 'C' (PHC in the dimension of the work process) and 'C' (COVID-19 pandemic)[11].

It is important to highlight that, initially, this study aimed to analyze the performance of PHC in light of not only the work process, but also considering the dimension of health system funding in the context of the health crisis. For this reason, the topic was incorporated into the PCC strategy and the guiding question of the review. However, the scarcity of available evidence on the funding of these systems made it impossible to carry out a specific analysis of this dimension. Even so, the absence of studies directly focused

on financing was interpreted as a relevant finding[14]. It was observed that the theme was mentioned in 15[15-29] of the 34 included articles, predominantly in a cross-sectional manner, within the context of discussions about the work process. Thus, although the research question of this review includes the dimension of funding, the final product presents exclusively the evidence related to the work process. The methodological decisions and additional details are described in the supplementary material (https://doi.org/10.17605/OSF.IO/DSCNB).

The inclusion criteria were: articles containing elements of the PCC strategy. Only studies published in Portuguese, English, or Spanish were considered, due to Brazil's location in South America, where Portuguese and Spanish predominate, while England is part of the United Kingdom, whose official language is English. Furthermore, only materials published between 2020 and 2024 were selected, a time frame that coincides with the period of the COVID-19 pandemic proposed for this review, which was officially declared by the World Health Organization (WHO) in March 2020 and ended in May 2023[1,30]. Grey literature was included, as detailed in the supplementary material.

Publications whose titles and abstracts did not answer the guiding research question were excluded. The searches were conducted in June 2024 in the following databases: PubMed, LILACS, Scopus, Cinahl, Embase, and Web of Science. The search strategy was constructed based on descriptors from the Medical Subject Headings (MeSH) and Health Sciences Descriptors (DeCS), combined using Boolean operators (OR and AND), and adapted for each of the databases used in this study. The complete description can be viewed in the review protocol.

The selected studies were initially imported into the EndNote reference management software and then into the Rayyan platform, which enabled the identification and exclusion of duplicate publications, as well as the conduction of the studies selection process[31,32].

Prior to this stage, a calibration was carried out among all reviewers to align eligibility criteria. The selection of studies was conducted blindly by two independent reviewers, based on reading titles and abstracts. In cases where there was no consensus, a third reviewer was called upon to resolve the disagreements. The Rayyan platform recorded all decisions made throughout the process[32].

During data extraction, information was collected from each selected publication: study characteristics (authors, year of publication, country, region and health system, type of publication, study design), main results, challenges, and contributions. In addition, the specific area of PHC addressed within the individual dimension and the specific subdimension covered were identified, according to the theoretical framework used.

As a reference point, two of the four dimensions proposed by Medina et al.[33] to guide the performance of primary health care during the COVID-19 pandemic were used – 'Care for users with COVID-19' and 'Continuity of PHC specific actions' – as they are more aligned with the focus of this study, which is centered on the work process in health. This choice was corroborated by the analysis of Schenkman et al.[27], which regroups the axes of Medina et al.[33] into two major dimensions: collective ('Health surveillance in the territories' and 'Social support for vulnerable groups') and individual ('Care for users with COVID-19' and 'Continuity of PHC specific actions'). Only the individual dimension was considered in this review.

For analytical and presentation purposes, this dimension was divided into its two axes, treated here as dimensions. From these, two fundamental sub-dimensions emerged for the analysis, also based on Medina et al.[33], whose recurrence and relevance in publications justify their adoption: 'Reorganization of PHC professionals' work process' and 'Incorporation of new technologies (Telehealth)'.

As a conclusion to the study, the scoping review also provided evidence regarding the similarities and differences in the performance of PHC in both health systems, based on the convergence/divergence theory[34]. The results were presented through a narrative synthesis, for a clearer exposition of the contrasts and similarities identified when comparing the individual dimension of Brazilian and English PHC during the COVID-19 pandemic, following the recommendations of Prisma-ScR[12].

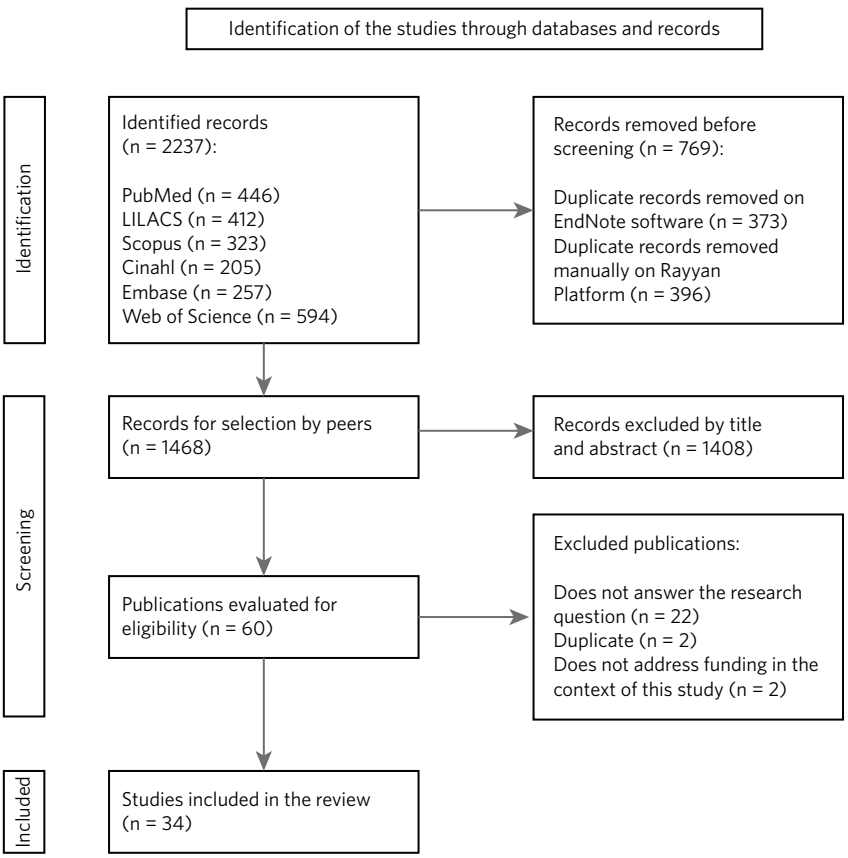
It should be noted that the studies were not evaluated according to their methodological quality, as this step is not a requirement for scoping reviews[12].

Because it did not involve the direct participation of human beings, this study did not require submission to a Research Ethics Committee.

Results and discussion

The process of studies selection is described in *figure 1*, according to Prisma-ScR recommendations[12].

Figure 1. Flowchart of the studies selection process



Source: Prepared by the authors, based on Page et al.[35].

Thirty-four publications were included: two experience reports[36,37], two scoping reviews[38,39], two qualitative studies[17,20], two descriptive studies[40,41], one descriptive cross-sectional study[42], three cross-sectional studies[27,43,44], three exploratory studies[21,45,46], one commentary[23], three technical notes[28,29,47], two case studies[22,26], one documentary research[25], one evaluative research[48], one multicenter qualitative research[16], one descriptive and exploratory research[24], one qualitative, descriptive and exploratory study[49], one longitudinal study[50], one cross-sectional observational research[15], one descriptive cross-sectional study[51], one literature review and documentary review[52], one qualitative, analytical-descriptive, multiple case study[53], and three publications that did not specify the type of study[18,19,54].

Of the 34 studies, 16 were published in 2023[15-18,21,22,24,27,38,41,42,44,48,49,51,53], five in 2020[23,28,37,47,52], five in 2021[19,26,29,43,46], five in 2022[25,36,39,45,50], two in 2024[20,40], and one publication did not provide a date[54]. Regarding the origin, 27 publications referred to SUS[15-20,22,24-29,36-38,40-42,44,47-49,51-54], six addressed NHS[23,24,43,45,46,50], and one publication mentioned both systems[39].

Of the 27 Brazilian publications, six had national scope[19,27,29,44,52,54], one mentioned more than one region[38], 11 were concentrated in the Northeast region[18,20,25,26,36,37,40-42,51,53], four in the Southeast region[16,17,24,49], three in the South region[22,47,48], while the North and Central-West regions were mentioned by one publication each[15,28]. Regarding the six studies conducted in England, five had national scope[21,23,43,46,50], while one was conducted in the Midlands, South East, and South West England regions[45]. The study that addressed both Brazil and England presented results with national reach[39].

According to *tables 1 and 2* below, 28 studies[15-26,36,37,39-49,51-53] addressed in-depth the two proposed dimensions and sub-dimensions. Six other publications presented variations: one dealt exclusively with the dimension 'Care for users with COVID-19' and the sub-dimension 'Incorporation of new technologies (Telehealth)'[54]; two analyzed both dimensions, but focusing exclusively on one sub-dimension each – 'Incorporation of new technologies (Telehealth)'[38] and 'Reorganization of the work process'[28]; and three addressed both sub-dimensions within the dimension 'Continuity of primary health care actions'[27,29,50].

Table 1. Care for users with COVID-19 and Continuity of PHC specific actions in SUS and in NHS

Dimension	SUS (Brazil)	NHS (England)
Care for users with COVID-19	- Structural reorganization of PHC units (limitation of companions, physical barriers, external triage, isolation of symptomatic patients, separate schedules) [16,18,24,26,36,38,39,41,44,47,48,53]. - Creation of Reference Units for COVID-19 in some locations (especially in the Northeast) [20,22,25]. - PHC focused on emergency care[15,16,19,24,26,40,49,53]. - Mild cases treated and monitored by PHC; aggravated cases referred to hospitals by PHC[15,25,28,37,39,42,51,52,54]. - Increase of workload, reorganization of health professionals' work process, and adoption of new technologies[15,25,28,37,39,42,51,52,54].	- In-person care suspended for non-essential cases; PHC as entry door for COVID-19[43,45,53]. - Remote consultations for initial triage[46]. - Physical separation between symptomatic/non-symptomatic patients ('hot' and 'cold' care, respectively)[23,39,43,45,46]. - Creation of 'hubs' for care in repurposed facilities[43,46]. - Home visits primarily for patients who could not access PHC[23,39,43].

Table 1. Care for users with COVID-19 and Continuity of PHC specific actions in SUS and in NHS

Dimension	SUS (Brazil)	NHS (England)
Continuity of PHC specific actions	- PHC misconfigured into a network focused on urgencies/emergencies[16,17,19,20,24,26,28,38,40,48,49]. - Focus on priority groups (pregnant women, elderly, newborns); priority to patients with chronic non-communicable diseases (NCDs) decompensated[15,16,24,25,27–29,37]. - Loss of preventive measures due to the suspension of collective activities, team meetings, and referrals to specialists[16,17,19,20,24,26,28,38,40,48,49]. - Medication and prescription distribution maintained; home visits restricted to the immediate surroundings[16,18,19,24,37,40,41,47,48,53]. - Dentistry: suspension of elective treatments, continuation of urgent/emergency care, and significant lack of assistance provided by oral health teams throughout the country[22,28,29,42,51]. - Lack of robust guidelines for the continuity of actions[18]. - Expanded use of Telehealth for monitoring and maintaining routine PHC actions[15–19,21,24,36,38–40,42,43,49,51,52]. - Concern about the need to restrict services in PHC[15,16,24,25,27–29,37].	- Heavy reliance on Telehealth for initial consultations in PHC[23,39,45,46,50]. - Significant decrease in the number of referrals for specialist care[21,39,50]. - Concerns about late diagnoses, worsening health disparities, and deteriorating health conditions due to a lack of continuity in PHC actions, especially regarding patients with chronic non-communicable diseases (NCDs)[21,23,39,45,46,50]. - Routine activities should be resumed in conjunction with specialized care, but difficulties were observed even in urgent care[21,46].

Source: Prepared by the authors.

Table 2. Reorganization of PHC professionals' work process and Incorporation of new technologies (Telehealth)

Sub-dimension	SUS (Brazil)	NHS (England)
Reorganization of PHC professionals' work process	- Suspension of elective care and adaptation of work to focus on suspected cases of COVID-19[16–18,22,25–28,36,37,42,44,47–49,51,52,54]. - Oral health professionals reassigned to triage and classification (fast-track) roles, with routine dental appointments suspended[16–18,22,25–28,36,37,42,44,47–49,51,52,54]. - Community health agents (CHAs) reassigned to administrative tasks, triage, support in vaccination campaigns, and remote follow-up, thus altering their traditional work and weakening their territorial ties[16–18,22,25–28,36,37,42,44,47–49,51,52,54]. - Work overload, increased additional tasks, and loss of professional identity, thus hindering the performance of primary health care[15–17,19,24,36,40].	- Adoption of remote triage and consultations as standard, restricting in-person appointments[21,39,43]. - Limited referrals for specialist care; GPs began handling with remote support from specialists[21,50]. - Services reorganized to serve exclusively users with suspected COVID-19[43]. - Professionals reported increased and diversified job roles, lack of adequate training, and difficulties related to PPE (Personal Protective Equipment)[43,45,50]. - Work overload exacerbated by a pre-existing shortage of professionals[45,50].
Incorporation of new technologies (Telehealth)	- Implementation of remote care to minimize contamination and ensure continuity of care[15,16,20,40,41,44,48,53]. - Use of cell phones, messaging apps, and phone calls, although with significant heterogeneity: some units acquired equipment, while others did not even have a landline[15,16,20,40,41,44,48,53]. - Regional and social disparities have hindered the full adoption of Telehealth, negatively affecting equity of access[15,16,20,40,41,44,48,53].	- Accelerated expansion of strategies previously planned under the new service model of the English healthcare system (NHS Long Term Plan-2019)[21,23]. - Integration of electronic medical records with communication tools (text messaging and video calls) to facilitate contact between patients and healthcare professionals[21,23,50]. - Telehealth has become a standard practice in PHC in England, including support for cases that would previously have been referred to specialists[21,50].

Source: Prepared by the authors.

Care for users with COVID-19 and continuity of specific PHC actions

Flexibility and adaptability are essential for a health system to operate effectively in both routine actions and emergency situations[55,56]. In this scenario, PHC stood out for its reach, proximity to the population, and strategic role in addressing COVID-19, especially in managing mild cases, testing and referring severe cases, as well as serving as a source of information for the community[15-19,22,24-28,36,39,40-42,44,46,48,49,51-53].

The incorporation of care for people with COVID-19 required rapid changes in PHC work processes in Brazil and England, with the adoption of new workflows and prioritization of patients with respiratory symptoms[15-20,22-26,28,37-49,51-54]. These changes highlight the central and adaptive role of PHC, as well as the need to ensure continuity and quality of care in the face of a prolonged crisis[17,23,24,26,46,50].

During the pandemic, PHC was reconfigured in both countries. In the NHS, in-person appointments were largely replaced by Telehealth, prioritizing suspected COVID-19 cases[23,39,45,46,50]. Subsequently, care hubs were organized locally by Clinical Commissioning Groups (CCGs) and Primary Care Networks (PCNs), responsible for service planning and integrating PHC clinics to optimize care[43,46,57]. Despite these strategies, the suspension of non-essential care raised concerns about the worsening of non-communicable chronic diseases (NCDs) and the impairment of PHC's coordination function[21,39,45,46,50].

In Brazil, the reorganization of PHC included structural adaptations, the establishment of differentiated flows, and the definition of reference units for COVID-19[16,18,20,22,24-26,36,38,39,41,44,47,48,53]. Healthcare activities favored priority groups, while preventive and health promotion actions were substantially reduced[15-17,19,20,24-29,37,38,40,48,49]. Home visits were directed towards at-risk groups[16,18,19,24,37,40,41,47,48,53], Telehealth became a central strategy for maintaining longitudinal care[15-19,21,24,36,38-40,42,43,49,51,52], while dental clinics were restricted to emergency care, increasing the lack of assistance[22,28,29,42,51]. The absence of robust guidelines aimed at the continuity of PHC actions is evident, exposing the fragility of its valuation during the health crisis and reflecting a disregard for the strategic role of territorial actions and the potential of PHC capillarity in addressing the pandemic in Brazil[18].

The studies have shown that, during the pandemic, changes in the work process caused the Family Health Strategy (ESF) model to become diluted, temporarily losing its ability to implement its attributes of care coordination, longitudinality, and, in some aspects, the comprehensiveness of health actions and services, contributing to this point of care assuming a role focused on emergency care[15,16,19,24,26,40,49,53,58].

Reorganization of PHC professionals' work process and the incorporation of new technologies (Telehealth)

Based on the analysis of the articles in this research, two closely connected sub-dimensions stand out for participating in an integrated way in the work process changes in both countries' PHC. These changes were driven by actions related to the pandemic, which required the reorganization of professionals' work processes and the incorporation of new technologies, especially through Telehealth, at this point of care.

In the NHS, the reorganization of PHC workflow was marked by the adoption of remote consultations as standard procedure[21,39,43]. The system overload led to a limitation of referrals to specialized care, stimulating the use of digital tools to connect PHC professionals with specialists[21,50]. Work overload, increased responsibilities, and deviation from original functions were observed, aggravated by staff shortages – a structural problem predating the pandemic, related to low salaries

and increased workloads[45,50] – and by a lack of Personal Protective Equipment (PPE), compromising the safety of professionals[45].

In the SUS, the reorganization involved the suspension of elective care and the performance of home visits in the peridomiciliary environment. Oral health professionals were redirected to triage symptomatic patients, while PHC assumed functions typical of emergency care[17,22,25,28,37,42,44,48,51,52]. Community Health Agents (CHAs) also had their roles de-characterized, with reduced activity in the territory and greater participation in administrative tasks, thus weakening their ties with the community[16-18,26,27,36,47,49,52,54].

Despite it being essential to prevent the lack of care, the implementation of Telehealth has faced obstacles in Brazil due to regional and social inequalities. While some units adopted cell phones and tablets, others lacked even basic telephone service, hindering the implementation of remote care technologies[15,16,20,40,41,44,48,53]. As in the NHS, the increase in responsibilities and the de-characterization of traditional roles caused stress among professionals and negatively affected the performance of PHC during the pandemic[15-17,19,24,36,40].

SUS and NHS: similarities and differences

Comparing the experiences of both countries, we perceive similarities and differences. In both the SUS and the NHS, the incorporation of services focused on COVID-19 led to an interruption in the routine activities of PHC, which, being used as an entry point for symptomatic patients, began to offer only part of its core services[15-20,22-26,28,37-49,51-54].

Uncertainty surrounding the disease led authorities to suspend services deemed non-essential, in order to focus assistance on COVID-19[15,16,24,25,27-29,37,43,45,53].

The NHS relied primarily on Telehealth to continue providing care and conducting remote monitoring[21,39,43]. The SUS, on the other hand, could have more effectively leveraged the close ties previously built with the community through its PHC teams to perform surveillance functions[18]. Despite also facing structural challenges for remote care, as well as the need for greater investment in professional training, reports indicate that conditions for this resource in the NHS are still much better than in the SUS, where many health units did not even have landline telephones[15,16,20,21,39,40,41,44,48,53].

Upon resuming in-person appointments, the reorganization of clinical infrastructure in England was more successful. Greater structural capacity is evident, for example, in clinics with separate entrances and exits and distinct parking areas. This is far removed from the reality observed in Brazil, where PHC required resilience to adapt already precarious physical and structural spaces[18,22-24,26,39,43-46].

In the NHS, the PHC is structured primarily around General Practitioners (GPs), and this centrality was evident in the studies analyzed. Unlike what was observed in research on the SUS, which presented a multidisciplinary approach in PHC, in England only one study had an in-depth approach to the work process of a professional other than the GP, analyzing the impacts of the pandemic on nursing in English PHC, such as friction observed between professional categories, since nursing workers felt undervalued in relation to doctors[45].

In Brazil, in addition to the collective approach of the multidisciplinary team, the analyzed studies investigated, specifically, the work of nursing[15,20,40,49], dentistry[29,42,51], and the CHAs[18,19,41,47,52], while no study focused exclusively on medical work; thus, they highlight the multidisciplinary nature of PHC within the SUS, which differs from the medical-centered model to favor inter-professional collaboration.

On the other hand, the lack of studies on the work processes of other essential PHC professionals in England, such as dentists, reflects a weakness in the NHS's inter-professional approach. This limitation was highlighted as an aspect to be improved in England[45].

In both systems, we observed a distortion of primary care, with a focus on providing care geared towards immediate, short-term needs. In addition to this, there are significant deviations in the roles of certain professionals, whose responsibilities based on actions in the field – such as CHAs – are part of the construction of the Brazilian PHC's identity, which was underutilized during the pandemic[24,49]. In the NHS, this experience highlights the importance of an inter-professional approach – such as holding team meetings, as well as local autonomy for decision-making, even with a relative lack of standardization in responses[23,43,46]. This inter-professionalism and decentralization, presented as positive changes to be implemented in the future of the English PHC, are already characteristics present in the Brazilian SUS, but have not been fully utilized. Cancelled team meetings and estrangement among professionals have led to friction[16,17,24]. In Brazil, the decentralization of health responsibility to municipalities, coupled with a lack of federal coordination, led to a very heterogeneous response from PHC within the SUS. Therefore, most of the included studies presented regional perspectives, hindering a national assessment[18]. In England, however, there was a tendency to analyze experiences nationally, neglecting regional specificities and characteristics that could provide insights into this period[43,45,46].

Another contrast is a relative financial protection of PHC in the NHS, through government commitment to ensuring financial support, while in the SUS the challenges already faced by PHC have intensified, compounded by difficulties in accessing (insufficient) emergency resources, weakening of inter-professional work, and compromised territorial approaches[15–27].

Limitations of the study

A significant limitation to consider is that the studies analyzed reflect different moments of the pandemic, both in Brazil and in England. This temporal variation adds caution to the comparison between the two health systems, reinforcing the need for future studies that evaluate equivalent periods of the pandemic for a more in-depth analysis.

Final considerations

Significant changes were identified in the PHC work process within the SUS and the NHS during the pandemic, with relevant similarities and contrasts. Both systems prioritized care for patients with respiratory symptoms, leading to a reduction or interruption of routine activities and a loss of attributes such as longitudinality, bonding, and integrality.

In the NHS, there was a central role for GPs, an expansion of remote care, and a physical reorganization of units with greater structural capacity; whereas in the SUS a more collective and inter-professional approach was observed, with a focus on nursing professionals, oral health specialists, and community health agents, often through reassignment. Limited technological and structural resources hindered the adoption of Telehealth, highlighting regional inequalities.

While the English PHC demonstrated greater adaptability, particularly with the use of technology and local autonomy, the Brazilian PHC failed to fully realize its community potential, partly due to a lack of national coordination and fragmented responses across territories. Both systems suffered from work overload, professional stress, and a loss of identity in the traditional functions of PHC, revealing pre-existing weaknesses – such as lack of investment, scarcity of human resources, and structural difficulties.

Nevertheless, the crisis revealed avenues for improvement, such as valuing inter-professional collaboration and incorporating digital technologies – provided they are accompanied by adequate investment and support. Future research should delve deeper into the role

of under-researched professional categories, analyze territorial and temporal contexts, and assess the pandemic's impacts on access, equity, and health outcomes.

Although it was not the main focus of this research, it is worth highlighting the lack of studies on the effects of the pandemic on Hospitalizations for Primary Care Sensitive Conditions (HPCSC) rates – an indicator widely used to indirectly assess the performance of PHC in preventing complications and managing chronic conditions. Considering that the pandemic led to the suspension or reduction of regular care, especially for people with NCDs, it is plausible that this lack of assistance negatively affected the HPCSC indices. Therefore, future investigations into this indicator are fundamental to measuring the real impacts of the pandemic on the performance of PHC in both systems. Furthermore, a scarcity of studies addressing other dimensions linked to PHC, such as funding during the pandemic period, was identified, which also deserves greater attention in subsequent research.

Authorship contributions

Souza LB (0000-0001-9974-3063)* contributed to the conception of the study, data collection, analysis and interpretation, writing and critical revision, and final approval of the manuscript. Batistuta JAR (0000-0002-0050-8280)* contributed to data analysis and interpretation, writing and critical revision, and final approval of the manuscript. Freire Filho JR (0000-0003-1306-9368)* contributed to the conception of the work, writing, critical revision, and final approval of the manuscript. ■

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