

## PATIENT SAFETY IN THE OBSTETRIC SETTING IN THE CONTEXT OF COVID-19: PERSPECTIVE OF HEALTHCARE PROFESSIONALS\*

SEGURANÇA DO PACIENTE NO CENÁRIO OBSTÉTRICO NO CONTEXTO DE COVID-19: PERSPECTIVA DOS PROFISSIONAIS DE SAÚDE\*

SEGURIDAD DEL PACIENTE EN EL ÁMBITO OBSTÉTRICO EN EL CONTEXTO DE LA COVID-19: PERSPECTIVA DE LOS PROFESIONALES DE LA SALUD\*

 Giulia Ribeiro Schettino Regne<sup>1</sup>  
 Anna Caroline Leite Costa<sup>1</sup>  
 Letícia Alves<sup>1</sup>  
 Maria Tereza Teles Coelho Aguilar Costa<sup>1</sup>  
 Alessandra Ferreira de Souza<sup>1</sup>  
 Bruna Figueiredo Manzo<sup>2</sup>

<sup>1</sup>Universidade Federal de Minas Gerais - UFMG, Escola de Enfermagem - EE, Programa de Pós-Graduação em Enfermagem. Belo Horizonte, MG - Brasil.

<sup>2</sup>Universidade Federal de Minas Gerais - UFMG, Escola de Enfermagem - EE, Departamento de Enfermagem Materno Infantil - EMI. Belo Horizonte, MG - Brazil.

**Corresponding Author:** Giulia Ribeiro Schettino Regne

**E-mail:** giuliaribeiro2204@gmail.com

### Author's Contribution:

**Conceptualization:** Letícia Alves, Bruna F. Manzo; **Data Collection:** Letícia Alves, Bruna F. Manzo; **Investigation:** Letícia Alves, Bruna F. Manzo; **Methodology:** Letícia Alves, Bruna F. Manzo; **Software:** Letícia Alves, Bruna F. Manzo; **Supervision:** Giulia R. S. Regne, Anna C. L. Costa, Bruna F. Manzo; **Validation:** Bruna F. Manzo; **Visualization:** Giulia R. S. Regne, Anna C. L. Costa, Letícia Alves, Maria T. T. C. A. Costa, Alessandra F. Souza, Bruna F. Manzo; **Writing – Original Draft:** Giulia R. S. Regne, Anna C. L. Costa, Letícia Alves, Maria T. T. C. A. Costa, Alessandra F. Souza, Bruna F. Manzo; **Writing – Revision & Editing:** Giulia R. S. Regne, Anna C. L. Costa, Letícia Alves, Maria T. T. C. A. Costa, Alessandra F. Souza, Bruna F. Manzo.

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## ABSTRACT

**Objective:** to analyze the perspectives of healthcare professionals regarding patient safety in an obstetric service during the COVID-19 pandemic, through the theoretical lens of structure, process, and outcomes. **Methods:** qualitative case study based on the Donabedian triad. Data were collected through semi-structured interviews and field observation in a Brazilian obstetric service. The data was analyzed using Braun and Clarke's reflexive thematic analysis. The Ethics and Research Committees approved the study. **Results:** the study included 27 health professionals. Four thematic categories emerged from the interviews: Health professionals' perspectives about patient safety; understanding of patient safety in relation to structure, process, and outcomes; facilitating and hindering factors; and strategies adopted during the COVID-19 pandemic. Structural and human resource limitations, dynamic workflows, and emotional strain were major challenges. Facilitating factors included a pre-existing safety culture, teamwork, and support from the Patient Safety Team. **Final considerations:** the reflective thematic analysis of the interviews allowed us to evaluate patient safety in the obstetric service in the context of the COVID-19 pandemic from the perspective of health professionals. The need for well-designed workflows and processes is highlighted, with the involvement of team members and clear and reliable communication mechanisms, enhancing the promotion of patient safety.

**Keywords:** Patient Safety; Hospitals, Maternity; Obstetrics and Gynecology Department, Hospital; COVID-19; Health Personnel.

## RESUMO

**Objetivo:** analisar as perspectivas de profissionais de saúde sobre a segurança do paciente em um serviço obstétrico durante a pandemia de COVID-19, por meio da lente teórica de estrutura, processo e resultados. **Métodos:** estudo de caso qualitativo baseado na tríade de Donabedian. Os dados foram coletados por meio de entrevistas semiestruturadas e observação de campo em um serviço obstétrico brasileiro. A análise dos dados foi realizada utilizando a análise temática reflexiva de Braun e Clarke. O estudo foi aprovado pelos Comitês de Ética e Pesquisa. **Resultados:** o estudo incluiu 27 profissionais de saúde. Quatro categorias temáticas emergiram das entrevistas: perspectivas dos profissionais de saúde sobre a segurança do paciente; compreensão da segurança do paciente em relação à estrutura, processo e resultados; fatores facilitadores e dificultadores; e estratégias adotadas durante a pandemia de COVID-19. As principais dificuldades incluíram limitações estruturais e de recursos humanos, fluxos de trabalho dinâmicos e sobrecarga emocional. Os fatores facilitadores incluíram uma cultura de segurança pré-existente, trabalho em equipe e apoio da Equipe de Segurança do Paciente. **Considerações finais:** a análise temática reflexiva das entrevistas permitiu avaliar a segurança do paciente no serviço obstétrico no contexto da pandemia de COVID-19 sob a perspectiva dos profissionais de saúde. Destaca-se a necessidade de fluxos e processos bem estruturados, com envolvimento dos membros da equipe e mecanismos de comunicação claros e confiáveis, favorecendo a promoção da segurança do paciente.

**Palavras-chave:** Segurança do Paciente; Maternidades; Unidade Hospitalar de Ginecologia e Obstetrícia; COVID-19; Pessoal de Saúde.

## RESUMEN

**Objetivo:** analizar las perspectivas de los profesionales de la salud sobre la seguridad del paciente en un servicio obstétrico durante la pandemia de COVID-19, a través del marco teórico de estructura, proceso y resultados. **Métodos:** estudio de caso cualitativo basado en la tríada de Donabedian. Los datos se recopilaron mediante entrevistas semiestruturadas y observación de campo en un servicio obstétrico brasileño. El análisis de los datos se realizó utilizando el análisis temático reflexivo de Braun y Clarke. El estudio fue aprobado por los Comités de Ética e Investigación. **Resultados:** el estudio incluyó a 27 profesionales de la salud. De las entrevistas surgieron cuatro categorías temáticas: perspectivas de los profesionales de la salud sobre la seguridad del paciente; comprensión de la seguridad del paciente en relación con la estructura, el proceso y los resultados; factores facilitadores y limitantes; y estrategias adoptadas durante la pandemia de COVID-19. Las limitaciones estructurales y de recursos humanos, los flujos

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de trabajo dinámicos y la carga emocional fueron los principales desafíos. Los factores facilitadores incluyeron una cultura de seguridad preexistente, el trabajo en equipo y el apoyo del Equipo de Seguridad del Paciente. Consideraciones finales: el análisis temático reflexivo de las entrevistas permitió evaluar la seguridad del paciente en el servicio obstétrico en el contexto de la pandemia de COVID-19 desde la perspectiva de los profesionales de la salud. Se resalta la necesidad de contar con flujos de trabajo y procesos bien diseñados, con la participación de los miembros del equipo y mecanismos de comunicación claros y confiables, lo que fortalece la promoción de la seguridad del paciente.

**Palabras clave:** Seguridad del Paciente; Maternidades; Servicio de Ginecología y Obstetricia en Hospital; COVID-19; Personal de Salud.

## INTRODUCTION

Although pregnancy and birth are considered physiological processes, hospitalized women may be exposed to unnecessary and untimely interventions, leading to preventable adverse events (AE)<sup>(1,2)</sup>. It is noteworthy that, to achieve quality and safe care, aspects such as material and human resources, work processes, and working conditions must be considered<sup>(3)</sup>. Thus, crisis situations, such as the COVID-19 pandemic, are capable of interfering with the promotion of safe care.

Between 2020 and 2021, the COVID-19 pandemic peaked, resulting in the collapse of health services and a shortage of health workers<sup>(4)</sup>. The Pan American Health Organization pointed out an exponential increase in cases among pregnant and postpartum women, as well as maternal deaths due to COVID-19 in 2021<sup>(5)</sup>. The pandemic did not limit maternal and neonatal incidents to COVID-19-related morbidity and mortality; the high rate of maternal mortality was largely due to the difficulty in accessing necessary care to manage the disease<sup>(1)</sup>. Many prenatal resources and services have been reallocated to COVID-19 care, complicating access to these essential services<sup>(1)</sup>.

The COVID-19 pandemic's impact on maternal mortality reaffirmed structural problems in providing timely, quality, and safe care<sup>(6)</sup>, both in terms of providing effective and safe assistance to the population and ensuring the safety of healthcare professionals<sup>(7)</sup>. The overload of these professionals led to a greater risk of AEs associated with the care provided<sup>(7)</sup>.

In this context, the need to develop strategies for protecting maternal and neonatal health emerges. Some studies highlight the importance of patient safety (PS) in the quality of care provided by health services, including obstetric services<sup>(5,8)</sup>. However, there is a lack of studies that analyze the PS process in obstetric services in the context of the COVID-19 pandemic and from the health professionals' perspective.

Health professionals may have experienced the PS process in a different way than in the pre-pandemic scenario. Furthermore, the multidisciplinary team may have

needed to reorganize itself and create distinct strategies to preserve PS in the obstetric service.

This study's findings can contribute to the recognition and improvement of safe practice strategies in obstetric services, especially in times of crisis. Furthermore, it can encourage discussion about the potentialities and weaknesses of obstetric services in relation to PS and allow for the optimization of the structure and work processes, with the goal of improving the quality of care provided.

Considering this, the study was conducted based on this following research question: what are the healthcare professionals' perceptions, experiences, and evaluations regarding patient safety in a maternity setting during the COVID-19 pandemic, and what factors and strategies influenced its promotion, considering the dimensions of structure, process, and outcomes? This study aimed to analyze the perspectives of healthcare professionals regarding patient safety in an obstetric service during the COVID-19 pandemic, through the theoretical lens of structure, process, and outcomes.

## METHODS

This is a qualitative study derived from a dissertation and based on the Donabedian quality-of-care theoretical framework<sup>(9)</sup>. Donabedian developed a structured model for healthcare service assessment based on structure, process, and result, arguing that quality care enhanced the patient's well-being at all stages of the care process<sup>(9)</sup>.

The study took place at a public hospital in Belo Horizonte, Minas Gerais, Brazil, in an obstetric service for high-risk pregnancies. We recruited the sample from various professional categories within this obstetric service using purposive and convenience sampling techniques. The inclusion criteria included being a member of the obstetric service team, working in assistance or service management from March 2020 (the beginning of the COVID-19 pandemic) until the period of research data collection, and agreeing to participate by signing a free and informed consent form. The exclusion criterion involved the professional interrupting the interview and not completing the data collection process; however, there was no interruption and, therefore, no exclusion from any interviews.

Data collection took place between February and April 2022, through a semi-structured in-person interview with guiding questions, which allows the participant to express themselves on the proposed topic without answers or conditions pre-established by the researcher<sup>(10)</sup>. The guiding questions addressed the participants' understanding and contributions to patient safety; evaluations of

the maternity ward's structure, work processes, and outcomes before and after the pandemic; strategies implemented to ensure patient safety; facilitators and barriers encountered in this context; the role of patients and their companions in promoting safety; and the care practices adopted from admission to discharge. These questions were designed to capture both individual and systemic dimensions of patient safety, aligned with the framework of structure, process, and outcomes.

The interviews were conducted by an author of this research, an obstetric female nurse, in a private space from the obstetric service, with just the interviewer and the professional. There was no need for repetition of the interviews. The interviews lasted between five and thirty minutes and were recorded to ensure the completeness and reliability of the information which was later transcribed. The data saturation criterion, which occurs when the data does not add new information to support theorizing<sup>(11)</sup>, led to the interruption of data collection. We listed the interviews in the order they took place, replacing the names of the health professionals with the acronym "P."

We subjected the collected data to Braun and Clark's reflective thematic analysis<sup>(12)</sup>. According to these authors<sup>(12)</sup>, reflective thematic analysis involves six phases: 1) data familiarization through reading, re-reading, and noting initial ideas; 2) generating codes and coding the data; 3) potential themes emerged through the grouping of codes, based on the identification of patterns among them; 4) these themes were reviewed in relation to the coded extracts and the entire dataset; 5) defining and naming the thematic categories, which occurred continuously during the writing process - the sixth phase - in order to refine the specificities of each category and to generate clear and well-defined names and descriptions.

Data analysis was supported by MAXQDA 2022 software. The coding process was conducted collaboratively through consensus among the researchers, ensuring alignment in the identification and organization of themes. To enhance the trustworthiness of the analysis, peer validation was performed by an external researcher not involved in the initial coding. Additionally, data triangulation was employed through the integration of information from both the interviews and field diary notes, allowing for a broader and more contextualized understanding of the phenomena studied. The participants also received feedback after the research was completed.

A reflexive approach<sup>(12)</sup> was used for coding and developing themes, with in-depth engagement and participation by the researchers in the elaboration of the themes, which were considered as patterns of meaning supported

by a concept of patient safety. Coding consisted of synthesizing the contents of the interpretation so that patterns could be identified for later generation of categories. Repeated readings of the data were performed in search of meanings and patterns. The database was read in full at least once before coding. The value of reading and rereading generated new ideas and the identification of possible patterns that were shaped as the reading developed. This analysis initially took place individually and independently by the researchers and later, collectively, the relevance, coherence, and homogenization and heterogeneity of data were assessed. Thus, the researchers validated the codes with common core meanings that helped in understanding the theme as a whole. Likewise, it was certified that the categories were distinct from each other, with no overlapping of data.

Based on Donabedian's triad<sup>(9)</sup>, at this study, aspects related to "structure" included reports concerning the organizational structure, organization of work processes, as well as equipment, materials, physical infrastructure, and human and financial resources necessary to promote patient safety in the context of the COVID-19 pandemic. Grounded in the same framework, aspects categorized under "process" encompassed reports addressing how healthcare is delivered, including how patients receive care, how professionals perform diagnoses and determine appropriate interventions for health and illness situations, and the existence of training sessions and protocol discussions aimed at promoting patient safety during the COVID-19 pandemic. Finally, "outcomes" were represented by reports reflecting the capacity to generate direct effects of care and patient safety within the pandemic context.

The Research Ethics Committee of the Federal University of Minas Gerais and the hospital where this study was conducted approved the study, under the CAAE: 54459216.2.0000.5149 and CAAE: 54459216.2.3002.512. The research followed all ethical precepts in accordance with Resolution No. 466/2012 of the National Health Council from Brazil, which regulates study involving human beings.

Lastly, we conducted this research using the "Consolidated Criteria for Reporting Qualitative Research" (COREQ) checklist.

## RESULTS

27 health professionals participated in the research, including two managers (7.4%) and 25 assistance professionals (92.6%). The participants' age ranged from 31

to 65 years old (average: 45.6 years). Most professionals were female (92.6%) and worked day shifts (85.2%). Professional experience ranged from 2 to 32 years, with an average of 16 years. Regarding the time working in the obstetric service, it ranged from 1 to 20 years, with an average of 9.5.

Four thematic categories emerged from the interviews and field diary observations: 1) Health professionals' perspectives about PS; 2) PS aspects in relation to structure, process and results; 3) Facilitating and hindering aspects for promoting PS in the obstetric service in the context of the COVID-19 pandemic; and 4) Strategies for promoting PS in the obstetric service in the COVID-19 pandemic context.

### **Health professionals' perspectives about PS**

For most health professionals in the obstetric service, the concept of PS is related to conducting actions in accordance with International PS Goals and reducing AE, as presented in the following statements::

*PS means reducing as much as possible the risk of the patient having any AE. (P6)*

*PS means all the caution we must have with this patient not to administer the wrong medication, avoiding falls and injuries, and identifying them properly. (P25)*

### **PS aspects in relation to structure, process, and results**

Regarding the structure, participants identified the physical structure as both highly relevant and challenging for PS in the context of the COVID-19 pandemic.

*[...] we don't have an adequate physical area to examine patients and keep the physical distance, so that was a big challenge. We needed to reduce the maternity bed numbers to follow the distancing and keep the mother and baby together. (P1)*

In the context of the COVID-19 pandemic, the necessity to restructure the work process, human resources, and physical resources had a significant impact on PS's promotion. Furthermore, the reports highlighted a shortage of assistance professionals, particularly due to illness-related absences, necessitating the urgent hiring of new personnel with limited training time, as outlined in the following reports.

*[...] it overloaded us a lot in the personal aspect as well... So there was a shortage of people to cover for them [...] Workers would get sick during the pandemic, then there would be a selection process, and the ones who were hired during the pandemic would also get sick. (P4)*

The protocols also emphasized the need for adaptation, such as the use of PPE, hand hygiene, and orienting the patient's companions. The discovery of new pandemic information urged a review of workflows and protocols.

*[...] we started to be stricter with wearing masks, washing hands, and with the patient's companion. I think, in this matter, things got better because we would go in the morning offering masks and guiding people to keep them on. (P24)*

Still, about process, the topics covered by the professionals included training and discussing protocols in light of the new demands imposed by the pandemic. The participants' statements showed a dynamic activity with diverse methods, as presented in the following statements:

*Because of COVID, we had several trainings about PS and the consistent use of PPE. I think it improved a bit because we protected ourselves better, but I think it's a process that must be reviewed as time goes by, you know? In general, it was a period that was initially very dynamic, with protocols that'd change all the time, so every time we would be retrained, we would discuss everything again, and something would change. (P1)*

*[...] The PS Team started to share videos and podcasts. They sent it to our phones so we would watch it at home; there was a greater promotion in an online way, so I think that facilitated access for everyone. (P26)*

The professionals' responses revealed topics such as teamwork recognition, safety behavior adoption, and PS care indicator evaluation.

*[...] I think the professionals' attention to PPE and hand washing was the biggest change that I've noticed before, during, and after the pandemic. (P1)*

*Another important thing that I think impacts the quality of assistance is teamwork. People would understand that they don't work by themselves and that we alone can't do anything. I think that impacts a lot on the quality of assistance, of PS. (P1)*

## Facilitating and hindering aspects for promoting PS in the obstetric service in the context of the COVID-19 pandemic

As for facilitating aspects for overcoming the pandemic, participants addressed issues predominantly related to structure and process in their statements. The pandemic context elevated and enhanced the institution's previous engagement with the PS theme.

*A facilitating aspect was that we had already worked inside the institution on these safety concepts some time ago. That is something you can't suddenly implement and that it isn't always implemented [...] But when you start to create an organizational culture, it gets easier. (P2)*

Other facilitating aspects described by professionals were the support of the Patient Safety Team (PST), teamwork, the patient as the protagonist of care, rapid communication technologies, and the effective reorganization of the work process.

As for hindering aspects, the participants discussed issues related to structure, process, and result in their statements. During the discussion on structure, the participants highlighted the insufficient physical space and the delayed delivery of rapid test results.

*The primary obstacle was the physical area, which acted as a hindrance to everything else. [...] Mostly in the maternity unit, that within a hospital is the most affected area. In the beginning, it was the raw material, but that later stopped being a problem. (P2)*

*And the rapid tests took a long time to arrive. I think this would help us identify the patient faster and reduce contact with them. (P3)*

Regarding the process, the lack or restriction of a companion in the first moments of the pandemic was emphasized.

*I think it was when the patient had COVID that she couldn't have a companion to help her [...]. Sometimes, there were cases in which the woman would pass away without having a companion next to her; you know, this impacted me a lot. (P9)*

Participants highlighted very dynamic flows and protocols in their descriptions, with constant changes, as well as professionals not following the guidelines for using PPE.

*[...] a difficult thing for us was that every day we had a different protocol, so when you were just starting to get an old protocol, it would change; it was a hindering aspect. (P20)*

*It's difficult for some long-term practitioners to follow it. [...] It's been more than two years, and we still ask them to wear their masks. (P20)*

In relation to the results, the participants mentioned the feelings aroused in professionals, such as stress, fear, and insecurity, as challenging perspectives..

*So, in the beginning, it was very stressful... very stressful, fear, distress - we didn't know what we were dealing with. Our emotions were very, very affected. (P10)*

## Strategies for promoting PS in the obstetric service in the COVID-19 pandemic context

When narrating the strategies for promoting PS in the obstetric service in the pandemic context, the participants emphasized aspects related to the structure and process. In terms of the structure, the universal testing of pregnant women is particularly noteworthy.

*The city adopted universal testing. So, all the hospitalized pregnant women are tested; even if they are asymptomatic [...] you identify them beforehand, and then you can monitor that patient closely. (P2)*

Regarding the process, the participants linked the strategies they highlighted to the reorganization of professional flows, the training and discussion of protocols, and the mobilization of the team.

*[...] the first thing we did was identify the patient with suspected COVID, with a clinical suspicion, in the risk classification. She wouldn't come here to consult with the doctor; there was a specific area for her, an isolated area downstairs, a specific consultation room, in which the doctor would go down wearing all PPE to examine her. (P2)*  
*[...] I think it was raising awareness, team awareness, of the workers, of the patients, of the companions, and we are always discussing and updating the protocols. (P3)*

Relational aspects, such as empathy, were also considered PS promotion strategies..

*[...] they had to execute skills that they sometimes didn't realize the importance of or didn't put on each other's shoes. [...] this transformed many times the assistance and how*

*we look at each other, you know, so I think it helped a lot.*  
(P1)

## DISCUSSION

Our findings make it clear that the COVID-19 pandemic context triggered changes in the structure, process and results of the obstetric service in order to promote PS.

The study participants' understanding of PS converges with the recommendations of international PS goals as well as with the concept of PS adopted by the WHO<sup>(13)</sup>. Health professionals need to understand it in a broader sense, with the aim of reflecting on the care provided. In this sense, it's not enough to link PS exclusively to the reduction of AEs and damage prevention<sup>(14)</sup>, as presented in some reports from professionals. A study carried out in a general hospital, with the objective of evaluating the patient safety culture (PSC), pointed out the need for control mechanisms focusing on quality of care and the involvement of all professionals in order to achieve a better perception of PS and promote safe care<sup>(15)</sup>.

The study identified the structure, particularly the physical structure, as inadequate and a hindering factor for the promotion of PS. This finding is similar to another study conducted during the COVID-19 pandemic period, where the physical structure and the installed capacity of health services were identified as major challenges<sup>(4)</sup>.

Regarding the process, the overload of participating professionals was also evident, similar to a study that found that the circumstances associated with the pandemic resulted in greater work overload for professionals involved in care and generated greater exhaustion, fear, and distress<sup>(7)</sup>. Another study underscored the significant impact of the COVID-19 pandemic on the emotional well-being of health professionals in public maternity hospitals, revealing a persistent prevalence of burnout syndrome symptoms among these professionals<sup>(16)</sup> during this period.

In addition to the impact of COVID-19 on workers' mental health and, consequently, the care they provide, a reduction in professional numbers resulted in overload. The absence of health professionals classified as a risk group for COVID-19 increased the burden on professionals who remained in care activities. Furthermore, there were absences due to the contamination of professionals by the COVID-19 virus. As a result, there was urgent hiring, with no opportunity to choose professionals with experience or time for training<sup>(4)</sup>.

Failure to adhere to PPE protocols poses a significant obstacle to the promotion of PS, as it jeopardizes the safety of both workers and patients. It is considered

that the appropriate use of PPE provides greater safety to workers, and the responsibility of services is to ensure their adequate availability<sup>(17)</sup>. Furthermore, providing sufficient and quality PPE reduces the risk of contamination by COVID-19, whereas reuse or inappropriate use can increase the risk<sup>(17)</sup>. Therefore, it is crucial to ensure continuous health education, with the goal of enhancing adherence to protection and safety measures at work.

Aspects related to the process were also identified as facilitating the promotion of PS. The expansion of training and the use of technologies, especially instant communication, were strategies adopted and recognized by the participants as favorable for improving communication between health professionals. A study carried out in Australia also demonstrated the creative use of technology to stimulate the workforce, as well as effective communication and teamwork, ensuring adequate care for patients and support for professionals during the pandemic period<sup>(18)</sup>.

The presence of companions was recognized as promoting PS, which is reiterated in the literature as it states that a companion chosen by the woman during the peri-partum period, in addition to increasing the feeling of physical and emotional comfort, is associated with the expression of maternal will at birth<sup>(19)</sup>. Restricting the companion contributes to other behaviors that violate the pregnant woman's autonomy at birth<sup>(19)</sup>, putting the safety of the care provided at risk.

A study involving 69 postpartum women in Brazil demonstrated the companion's solid role in promoting satisfaction with the woman's birth choices, providing emotional support, and promoting newborn care, family support, and safety<sup>(20)</sup>. Thus, the companion is considered a protective factor for the woman<sup>(20)</sup>.

The loss of this right during the pandemic led to a violation of rights known as obstetric violence<sup>(19,21)</sup>, which in turn contributed to the weakening of PS. It is crucial to note that the present study took place in a Brazilian institution, a country known for its high rates of labor and birth violations and its interventionist approach, despite the implementation of new processes based on good practices<sup>(22)</sup>.

This study also showed that teamwork and effective communication are essential for promoting PS. Therefore, to face the pandemic, professional interaction plays a crucial role, reinforcing the collaborative action of the health team in response to daily changes in flow and care, as well as in professional practices and the interprofessional relationship between the teams<sup>(23)</sup>.

In addition to the previously mentioned facilitating aspects, PSC was recognized as pertinent to the institution and the focus of discussion in the obstetric service, even prior to the pandemic. PSC is an environment in which all workers assume responsibility for their own safety as well as the safety of their colleagues, patients, and family members<sup>(24)</sup>. PSC promotes organizational learning, providing resources, structure, and accountability for effective security maintenance<sup>(24)</sup>. Despite the study institution's identification of PSC as a positive factor, hospitals in Latin American countries have yet to prioritize it<sup>(24)</sup>.

In relation to the aspects highlighted as hindering factors to the promotion of PS, participants cited the inadequate physical area, the way companions were treated, and the overload of professionals previously discussed.

The constant changes in service flows were another hindering factor. This finding corroborates the experience report on the care flow implementation for pregnant women with suspected or confirmed COVID-19 in the obstetric center of a public hospital<sup>(25)</sup>. This study points out that the development of care flows for pregnant women during the pandemic provided numerous challenges to the multidisciplinary team due to constant updates to care protocols and the frequent need for health education actions for the team<sup>(25)</sup>.

Finally, the participants in this study highlighted the strategies they used to promote PS, including the use of masks, adequate isolation, universal testing of pregnant women for COVID-19, reorganization of care flows, training and discussion of care protocols, mobilization of the health team, expanded information dissemination, and active role of the PST. Several of these strategies are presented in the literature as tools for establishing healthcare delivery in the context of the pandemic<sup>(4,6,18,21,23)</sup>.

The study's main highlights included recognizing the importance of PS obstetric services care in the pandemic context, understanding the organizational PSC, learning about COVID-19 for care purposes and fostering teamwork. Experiences brought by COVID-19 serve as an alert-up call for a deeper exploration of a framework that could potentially support PS during times of crisis<sup>(18)</sup>.

The findings of this study have important implications for professional training in obstetric care, particularly with an emphasis on patient safety. They highlight the need to incorporate discussions on safety culture, risk management, and emergency preparedness into the education of healthcare professionals. Furthermore, the results underscore the importance of developing institutional policies aimed at ensuring a rapid and coordinated

response to health crises, such as pandemics. The study also points to the need to advance research on how pre-existing organizational structures influence emergency management, contributing to a better understanding of institutional resilience and the capacity to safeguard patient safety during times of systemic stress.

Lastly, this study's limitations include its scenario based on a single obstetric service and the predominance of day shift participants, which may not align with other real-life situations.

## FINAL CONSIDERATIONS

The reflective thematic analysis of the interviews allowed us to evaluate PS in the obstetric service in the COVID-19 pandemic context from the perspectives of health professionals, considering the structure, process, and results achieved. We also described the facilitating and hindering aspects of promoting PS, as well as the strategies developed to do so.

When compared to the results, aspects related to structure and process were clear. This underscores the necessity of promoting health professionals' participation in teamwork, ensuring they comprehend the procedures, recognize the requirements, and collaborate on decisions to ensure PS in the maternity ward. To achieve this goal, it is critical to have effective and reliable communication mechanisms as well as safe spaces, including physical structure, for health professionals to provide qualified and safe care.

Future research should consider including multiple obstetric settings with diverse organizational characteristics to enhance the generalizability of findings. Additionally, recruiting participants across all shifts, including night and weekend teams, would provide a more comprehensive understanding of patient safety dynamics. Longitudinal studies are also recommended to assess the evolution of safety practices and organizational responses over time, particularly in the context of ongoing or future health crises.

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