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Obstetric nurses' experiences facing COVID-19

Experiências de enfermeiras obstetras no enfrentamento da COVID-19

Experiencias de enfermeras obstetras en el enfrentamiento del COVID-19

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ABSTRACT

Objective: to reveal the feelings and weaknesses of obstetric nurses facing the pandemic of the disease caused by type 2 coronavirus (COVID-19). **Method:** qualitative study, approved by the Research Ethics Committee, realized in three reference maternity hospitals for usual and intermediate risk in the north of Paraná, between January and July of 2021. Twelve obstetric nurses were interviewed individually and in person using a semi-structured instrument containing guiding questions, Bardin was used to analyze the data and Donabedian as a theoretical reference. **Results:** the narratives were grouped into two categories: Insecurity in the face of the unknown, and the fear of contamination by the SARS-Cov-2 virus; and Lack of investments in human capital generating a context of risk in the face of pandemic management. **Final considerations:** it was evidenced that the negative feelings reported by nurses are strongly linked to the specificity and weaknesses of the health service, especially maternity hospitals, in confronting the pandemic, affecting the mental health of these professionals.
Descriptors: Hospitals, Maternity; Obstetric Nursing; COVID-19; Occupational Health; Emotions.

RESUMO

Objetivo: desvelar os sentimentos e fragilidades de enfermeiras obstetras no enfrentamento da pandemia da doença causada pelo coronavírus do tipo 2 (COVID-19). **Método:** estudo qualitativo, aprovado pelo Comitê de Ética em Pesquisa, realizado em três maternidades de referência para risco habitual e intermediário no norte do Paraná, entre janeiro e julho de 2021. Foram entrevistadas individualmente e presencialmente, doze enfermeiras obstetras por meio de um instrumento semiestruturado contendo questões norteadoras, para análise dos dados foi utilizado Bardin e como referencial teórico Donabedian. **Resultados:** as narrativas foram agrupadas em duas categorias: A insegurança diante do desconhecido, e o medo da contaminação pelo vírus SARS-Cov-2; e Ausência de investimentos no capital humano gerando um contexto de risco frente ao manejo da pandemia. **Considerações finais:** evidenciou-se que os sentimentos negativos relatados pelas enfermeiras, estão fortemente ligados à especificidade e fragilidades do serviço de saúde, em especial maternidades, no enfrentamento da pandemia, afetando a saúde mental destes profissionais.
Descritores: Maternidades; Enfermagem Obstétrica; COVID-19; Saúde Ocupacional; Emoções.

RESUMEN

Objetivo: revelar los sentimientos y debilidades de las enfermeras obstétricas frente a la pandemia de la enfermedad causada por el coronavirus tipo 2 (COVID-19). **Método:** estudio cualitativo aprobado por el Comité de Ética en Investigación, realizado en tres maternidades de referencia para riesgo habitual e intermedio en el norte de Paraná, entre enero y julio de 2021. Se entrevistaron a doce enfermeras obstétricas, individual y presencialmente, utilizando un instrumento semiestructurado conteniendo preguntas orientadoras. Para el análisis de los datos se utilizó Bardin y, como referencia teórica, Donabedian. **Resultados:** las narrativas fueron agrupadas en dos categorías: inseguridad frente a lo desconocido y el miedo a la contaminación por el virus SARS-Cov-2; y falta de inversiones en capital humano generando un contexto de riesgo ante la gestión de la pandemia. **Consideraciones finales:** se evidenció que los sentimientos negativos reportados por las enfermeras están fuertemente relacionados a la especificidad y a las debilidades del servicio de salud, especialmente de las maternidades, en el enfrentamiento a la pandemia, afectando la salud mental de estas profesionales.
Descriptores: Maternidades; Enfermería Obstétrica; COVID-19; Salud Laboral; Emociones.

INTRODUCTION

The pandemic caused by the Severe Acute Respiratory Syndrome Coronavirus 2, or SARS-CoV-2 (COVID-19)[1], beginning in December 2019 in China, swiftly spread across all continents[2]. In Brazil, the first case was confirmed in February 2020[1]. This health condition necessitated the reorganization of healthcare services, leading to psychological distress among healthcare providers facing an exhausting work routine and the high risk of contamination[3,4].

National sanitary prevention measures were implemented to contain the new coronavirus. These measures included the mandatory use of masks for individual protection, social distancing, and measures of isolation at home[1]. Under these measures, hospitals had to reorganize their service flows, implementing potentially harmful

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practices for pregnant and puerperal women, such as restricting the presence of companions and family postpartum visits[5].

As a strategy to reduce the exposure of pregnant women, puerperal women, and newborns to the virus in obstetric services, the Ministry of Health recommended screening every parturient and their companion for COVID-19 suspicion or confirmation upon admission to the service. Regarding the presence of companions, it was advised not to rotate and to restrict their location to the area assisting the parturient, without circulating in other hospital areas, aiming to minimize person-to-person contact, along with the suspension of visits. According to Ministry of Health recommendations, the presence of a companion after delivery was only allowed in specific circumstances, such as clinical instability or special conditions of the newborn[6].

Pregnant women were classified as a high-risk group due to physiological changes inherent to pregnancy. It is important to highlight the need to safeguard the mother and the baby from COVID-19 while preserving good obstetric practices. Therefore, obstetric nurses faced changes in the context of childbirth and the postpartum period[5,7].

Despite the implementation of sanitary measures, the alarming increase in the number of cases of SARS-CoV-2 infections intensified the psychosocial effects of the pandemic, compromising mental health[8,9].

According to the Observatory of the Federal Nursing Council (COFEN), Brazil had the highest mortality rate of nursing care providers due to COVID-19, accounting for 30% of nursing care provider deaths worldwide. In October 2020, over forty thousand nursing care providers were registered as suspected cases of contamination, including nurses, nursing technicians, and nursing assistants[10,11].

Accordingly, it is essential to understand the emerging feelings in obstetric nurses based on their experiences in coping with the pandemic, identifying their care needs and professional qualifications early on. It is the responsibility of the healthcare service to implement support resources to subsidize new coping strategies for these pandemic implications that have affected the mental health of these healthcare providers[12].

In this scenario, there is a need for the evaluation of healthcare quality, which can be measured by the pillars proposed by the theorist Avedis Donabedian. This comprises a triad that evaluates structure, process, and outcome. The model's objective is to assess the quality of healthcare, assuming that it will be achieved through the practical application of technology and science in the healthcare system[13].

As a strategy to contain the rapid spread of COVID-19, the emergency use of the first vaccines began, authorized by the National Health Surveillance Agency (ANVISA) in Brazil in January 2021. Nevertheless, due to vaccine hesitancy among the population, this posed a challenge to public health[14].

Facing this problem, the question arose: What was the experience of obstetric nurses in coping with COVID-19? Consequently, the aim was to investigate the feelings and vulnerabilities of obstetric nurses in confronting the pandemic caused by the coronavirus type 2 (COVID-19).

METHOD

This qualitative study is part of a larger project entitled "*Impacto da COVID-19 no processo de nascimento no Norte Pioneiro*" (Impact of COVID-19 on the birthing process in the Northern Pioneer area), guided by the theoretical framework proposed by Avedis Donabedian, which evaluates the three main aspects of health quality through the triad: Structure, Process, and Outcome[15].

The "structure" is represented by the physical and financial resources used in healthcare, the "process" is represented by the interaction between the care providers and the population during healthcare assistance, and the "outcomes" are considered healthcare interventions and changes in the population, considering user satisfaction and the health/disease levels of individuals in the community[15].

In this study, the aspects of "structure" and "process" of the triad were addressed, comprising physical and organizational properties, including healthcare provider training, activities, and procedures performed in patient care, respectively, necessary for quality assistance[16].

The study took place in three maternity units of hospitals belonging to a Health Region in northern Paraná (H1, H2, H3), located in different municipalities. These services were selected as maternity referral units for micro-regions with routine and intermediate risk classifications.

The sample was defined as non-probabilistic, by convenience, and included all obstetric nurses (ONs) employed in the three maternity units, directly involved in caring for pregnant and postpartum women. Those on vacation or

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medical leave were excluded (*n* = 4). Twelve ONs participated in the interviews, four from each maternity unit (two from the day shift and two from the night shift).

Data collection occurred between January and July 2021 through individual interviews in a reserved room with a window and ventilation provided by the hospitals (H1, H2, H3). Nurses and the researcher wore N-95 masks. During the interview, a two-meter distance was maintained, and 70% alcohol gel was used for hand hygiene. The furniture in the room was sanitized before and after the participant's entry, ensuring everyone's safety. The researcher presented a declaration of COVID-19 vaccination status before the interviews and underwent monthly rapid testing for this condition until the end of the research. The choice was made to keep the interviews in person because it is believed that the interaction between the researcher and participant allows for a collaborative relationship, and the researcher is more perceptible to the participant's behavior, respecting moments of pauses for narrative elaboration.

An instrument with participant characterization questions followed by guiding questions was used. These included: "Tell me about the feelings you experienced in coping with COVID-19 during maternity care," and "Tell me about the weaknesses presented by the maternity unit in coping with the pandemic."

The average duration of the interviews was 30 minutes. The interviews were audio-recorded and later transcribed in full by the researcher, with corrections made for language and linguistic nuances without altering the meaning. The transcribed interviews were sent to the participants digitally (WhatsApp®) for final approval.

Data were analyzed using the Content Analysis technique proposed by Bardin, respecting the phases of pre-analysis, material exploration and treatment, inference, and interpretation of results, as described by the author[17].

Although each maternity unit has its work process related to the type of management leading the team, we assume that all three followed the World Health Organization (WHO) recommendations for intrapartum care providing a positive childbirth experience[18], national guidelines on good childbirth care practices[19], and WHO guidelines for COVID-19 precautions recommended especially for high-risk groups[20], which included, in Brazil, pregnant women and women up to fourteen days postpartum[21], thus aligning the reports.

The research protocol was approved by the Research Ethics Committee of the institution involved, following the National Health Council resolution 466/2012, ensuring the anonymity and privacy of the researched content.

After the transcription of interviews, participants were identified by codes, with the letters ON (obstetric nurse) and a number according to the order of execution, such as ON1, ON2, and so forth, respecting the participants' anonymity condition.

RESULTS AND DISCUSSION

The obstetric nurses had a mean age of 29 years, with the majority having more than five years of professional experience, and their tenure with the institution ranged from three months to four years.

After the analysis of the statements, the narratives were grouped into two categories: Insecurity in the face of the unknown and fear of contamination by the SARS-CoV-2 virus, and Absence of investments in human capital generating a risk context in the management of the pandemic.

Insecurity in the face of the unknown and fear of contamination by the SARS-CoV-2 virus

Insecurity is a feeling closely intertwined with fear, and both were strongly reported. The statements reflect the fear of getting infected and transmitting the virus to patients, whether explicitly mentioned or veiled in the assertion of a lack of protocols or personal protective equipment.

> *The fear of being infected is due to the risk that it [the virus] poses, and because it's a virus that doesn't have a clear pattern... the uncertainty of what symptoms you might manifest with it. (ON6 – H1)*
>
> *Fear of contracting COVID, today I'm more used to it, but I'm still afraid. Today I've gotten used to it, but I'm afraid of getting it without knowing how I will react... (ON8 – H1)*
>
> *Look, I don't feel afraid here in the maternity unit, but since I work in more than one department, I'm afraid of bringing it to the women and the babies... My fear here is giving it to them. (ON7 – H3)*
>
> *The insecurity comes from the fact that we don't know... Last shift I had a situation, and what I noticed is that we don't have a protocol... we take measures that we believe to be the best, and many times we try to contact our manager and can't, she's busy or in a meeting. This generates some fear and insecurity in us. (ON5 – H1)*

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> *Insecurity regarding patient care in the OB department because patients come from other cities, and we don't know where they've been... Regarding the pregnant women, we don't have many protocols for COVID in pregnant women... it's a feeling of concern for the pregnant woman and for us who are in the work environment. (ON2 – H3)*

> *Even wearing PPE, I don't feel completely secure because I've already had it; in my other job, I worked on the front line. (ON4 – H2)*

The prevalence of negative feelings, such as insecurity and fear, among obstetric nurses in coping with the COVID-19 pandemic became evident, with these sentiments strongly linked to the vulnerabilities of the healthcare service amid the health crisis.

The heightened perception of fear was directly associated with morbidity and mortality resulting from SARS-CoV-2, as the insecurity of being infected by a pathogen whose origin and disease manifestation were still under investigation affected the mental health of many individuals[22]. This feeling could be reduced through strategies that provide security and well-being, offered by healthcare organizations[4].

The specificity of healthcare services in maternity units, given the particularities of pregnancy, childbirth, and the postpartum period, intensified tension and stress among the healthcare providers, making the pandemic response more complex for obstetric nurses, requiring new strategies adopted by services for their practice[23].

A study conducted with nursing care providers in a maternity unit in the northeastern region of the country demonstrated an increase in mental suffering among obstetric care providers, with a high prevalence of anxiety and depression symptoms[23]. Another study conducted with healthcare professionals in India showed that the contamination of pregnant and postpartum individuals by the SARS-CoV-2 virus was a risk factor for the development of anxiety and depression among these professionals, especially those working in obstetrics, considering their responsibility for maternal and neonatal health[24].

The pandemic period negatively impacted the mental health of healthcare providers, and the fear of contamination was a feeling predominantly reported by frontline professionals, accompanied by anxiety[25].

In analyzing the feelings experienced by obstetric nurses in coping with COVID-19 in this study, the fear of contagion and the spread of the new virus, as well as insecurity regarding procedures for attending pregnant women, were reported. This was related to the lack of treatment protocols and team communication, as well as the lack of knowledge about the coronavirus and its physiological repercussions that were not fully elucidated.

Absence of investments in human capital generating a risk context in the management of the pandemic

Challenges such as an inadequate number of professionals to provide assistance, lack of protocols, insufficient training, and poor communication within the team were associated with difficulties in executing the work process.

> *Our biggest vulnerability is the lack of a team to be able to provide attention to everyone. (ON1 – H3)*

> *The lack of protocols is a weakness... I noticed that during labor, some staff members remove their masks. Usually, patients in labor give up on using the mask, and then some staff take advantage... It always needs attention at this point. (ON5 – H1)*

> *Certainly, there needed to be training or discussions; it would be easier to attend to these pregnant women because it would be clearer what we have to do. Since I didn't participate in the construction of the flowchart, I would need more specific guidance. (ON6 – H1)*

> *I didn't participate in the construction of the flowchart, it's only been three months since I've been here, and when I arrived, no one explained the flow to me. I learned when the patient arrived; the doctor told me to isolate her because he wouldn't attend to her here. The doctor told me that this was how I should do it... I think when I entered, they should have given me some training. (ON7 – H2)*

> *It would be important to have training; it's lacking here. This hinders the work process and leaves the service wanting; it could be better. For example, with this pandemic issue, we could better guide the patients. (ON10 – H3)*

> *Inconsistency in communication because not every shift follows the same thing... The difficulty the maternity unit has is communication, and if there were continuous education in the maternity unit, it would be a facilitating point, and guidance on COVID-19 protocols. For example, sending manuals and updates to the group would be important... it would favor our protection and that of patients and family members... I haven't had*

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> *contact with the recommendation's manuals for pregnant women, women in labor, and postpartum women facing COVID-19. (ON11 – H2)*
>
> *Divergence in communication among the providers... despite having a protocol, despite having a flow, steps are still skipped... we receive orders that diverge from the guidance of the CCIH itself... we are in the middle, potentially being contaminated and contaminating patients. (ON12 – H1)*
>
> *Here, we use this surgical mask and change it every 4 hours. We receive 4 masks per shift. I think everyone should use the N95... the other (N95) has seals and filters... I believe everyone should receive the same protective equipment. (ON3 – H3)*

Considering the Donabedian triad assessing healthcare quality, the lack of Personal Protective Equipment (PPE) reported by EO3 – H3 and the shortage of staff reported by EO1 – H2 refer to the physical, material, and organizational components of the "structure" element of the triad. According to Donabedian, an adequate healthcare service infrastructure supports the outcomes proposed by the institution[26].

Faced with the pandemic scenario, there should be an investment in the reorganization of healthcare units, avoiding difficulty in accessing PPE by healthcare providers, and the number of providers should be reviewed for new dimensioning[16,26].

> *The availability of PPE is a factor that favors the reduction of healthcare providers' absenteeism caused by the virus26. Some ONs expressed fear of COVID-19 infection due to the inadequate availability of PPE, reflecting a flaw in the health quality of the institutions under study (H1, H2, H3).*

Another aspect of the "structure" element, mentioned by EO6 – H1 and EO7 – H2, was the lack of training for healthcare providers, demonstrating that these services, by neglecting the training of providers at a critical moment, harmed the quality of care[16].

Regarding the "process" element, demonstrated by the flow and healthcare actions, the feeling of "insecurity" emerged due to the lack of knowledge about the institution's protocols for attending to pregnant women and postpartum women during the pandemic, as narrated by EO5 – H1 and EO3 – H3. Pregnant and postpartum women were included in the COVID-19 risk group, and from this, maternity care flows were modified, in which nursing care providers had to act based on technical-scientific knowledge for the comprehensive and humanized care of women entering the service[26]. Considering that technical-scientific knowledge was ineffective, another flaw in health quality was highlighted.

Given the insufficient resources and organization in managing COVID-19 by the healthcare institutions (H1, H2, H3), as reported by the obstetric nurses in this study, there arises a need for knowledge of emergency measures and appreciation of Human Capital (HC) in healthcare services. Human Capital is defined as capacities, skills, experiences, and knowledge involved in the dynamics of human formation. These elements form the Intellectual Capital (IC) and allow the development and innovation of nursing work through investments in education, training, and expanded experiences, with professional training and collective work being components of HC in the hospital context[27].

The lack of knowledge among the healthcare providers about new institutional rules after the implementation of emergency measures for COVID-19, as well as the insufficient number of professionals in this category to assist the population, clearly indicates the need for training and ongoing education, as well as the reorganization and homogenization of the work process[3]. The use of digital technologies, especially for regular sharing of new protocols and technical updates, is a good strategy in times of urgent changes[3]. In this study, this practice was reported by a participant as a protective factor because the dissemination of recommendations issued by official and institutional bodies through WhatsApp groups would facilitate communication and support their actions.

A study conducted with obstetric nurses working during the pandemic period highlighted that, to avoid contamination and the spread of COVID-19, on-the-job training is a fundamental process, adopted to implement new knowledge in the work dynamics, through the reworking of actions, ensuring the quality and safety of healthcare for women in the reproductive phase[7]. It is a tool for continuous education and, considering the role of healthcare service management in controlling the pandemic, the strategic use of Human Capital can be emphasized[27]. Collective work involves the participation of professionals in the construction and reconstruction of processes, and effective communication positively impacts the development of collective work in nursing. Strategies and management resources are necessary to favor the connection system between professionals for information sharing[27].

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Another aspect of the "process" element was the divergence and inconsistency in communication among maternity care providers mentioned by EO12 – H1 and EO11- H2, as effective communication among professionals is a quality tool in healthcare assistance[28], and communication failures can lead to adverse events, reducing the quality of care[29].

In this study, the reports of obstetric nurses reveal the absence of valuing human capital, especially regarding professional training and collective work, characterized by the absence of protocols, lack of training, and deficient communication among the team, highlighted by them as the main weaknesses.

The negative feelings reported by the obstetric nurses may be related to the weaknesses of the healthcare service in which they performed their work activity. Therefore, measures need to be taken to provide appropriate technical and emotional support for healthcare providers.

It is the role of institutions to conduct a situational diagnosis regarding levels of psychological distress, as well as the development of political and management actions that preserve the health of the worker[30]. As an option for psychosocial intervention, the use of digital technologies to provide psychological support is considered a good strategy, as it promotes a favorable environment for the mental health of healthcare providers[3].

FINAL CONSIDERATIONS

The experience of obstetric nurses in coping with the COVID-19 pandemic revealed negative feelings such as insecurity in the face of the unknown and fear of contamination. These sentiments were strongly linked to the service's shortcomings in adapting to a new work process, related to health quality, such as the lack of protocols, personal protective equipment, and an adequate number of professionals, as well as deficient communication – factors that reflected failures in the "structure" and "process" terms of the Donabedian triad.

Considering the causal relationship of the structure-process-outcome triad, the failures in the "structure" and "process" elements directly impact the "outcome," necessitating the identification and appropriate actions to correct these flaws[16].

The appreciation of human capital in healthcare services through professional training is a strategy that could decrease nurses' insecurity in the workplace during the pandemic, thereby reducing the negative emotional impacts arising from the work process. These strategies should consider not only the physical protection of professionals but also the protection of their mental health, including the provision of accurate and up-to-date information about the virus, appropriate psychological support, and the acknowledgment of their importance and value in the fight against the pandemic.

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Conceptualization, N.G.M. and N.J.F.M.; methodology, N.J.F.M.; software, N.G.M; validation, C.C.F.B., K.R.T.F.P. and D.B.M.L.; formal analysis, C.C.F.B.; investigation, N.J.F.M.; resources, N.G.M.; data curation, N.J.F.M.; manuscript writing, N.G.M.; manuscript review and editing, N.G.M and C.C.F.B.; visualization, K.R.T.F.P. and D.B.M.L.; supervision, C.C.F.B.; project administration, N.J.F.M.; funding aquisition, N.J.F.M and C.C.F.B. All authors have read and agreed to the published version of the manuscript.