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MOBILE APP INTERACTION IN PANDEMIC TIMES: EXPERIENCE OF PREGNANT AND POSTPARTUM WOMAN

*Interação por aplicativo móvel em tempos de pandemia: experiência de gestantes e puérperas**Interacción vía aplicación móvil en tiempos de pandemia: experiencia de gestantes y puérperas***Margarete Maria de Lima**¹ **Gabriela de Almeida Rocha**² **Roberta Costa**³ **Laís Antunes Wilhelm**⁴ **Miriane Pereira Drews**⁵ **Ariane Thaise Frello Roque**⁶ 

ABSTRACT

Objective: to know the experience of women who shared the livingness of the pregnancy-puerperal cycle during the Covid-19 Pandemic in a message app group created to complement the educational activities of a group of pregnant women. **Methods:** qualitative, descriptive and exploratory study. The data comes from the messages of 94 women participating in Groups of Pregnant Women and Pregnant Couples held in 2020, linked to an extension project of a University in the south of the country. **Results:** feelings related to the absence of physical contact with family and friends, doubts and challenges encountered during pregnancy and puerperium, fears and uncertainties regarding the labor and birth process were highlighted. **Conclusion:** the group of pregnant women mediated by a messaging application proved to be an ally in the interaction between women, enabling health education and the creation of a support network respecting social distance.

DESCRIPTORS: Pregnancy; Postpartum period; Social isolation; Pandemics;

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RESUMO

Objetivo: conhecer a experiência de mulheres que compartilharam a vivência do ciclo gravídico-puerperal durante a Pandemia Covid-19 em um grupo de aplicativo de mensagem criado para complementar as atividades educativas de um grupo de gestantes. **Método:** estudo qualitativo, descritivo e exploratório. Os dados são provenientes das mensagens de 94 mulheres participantes de Grupos de Gestantes e Casais Grávidos realizados em 2020, vinculado a um projeto de extensão de uma Universidade do Sul do país. **Resultados:** apresentam sentimentos relacionados à ausência do contato físico com família e amigos, dúvidas e desafios encontrados durante a gestação e puerpério, medos e incertezas em relação ao processo de parto e nascimento. **Conclusão:** o grupo de gestantes mediado por aplicativo de mensagens mostrou ser um aliado na interação entre as mulheres, possibilitando a educação em saúde e a criação de uma rede de apoio respeitando o distanciamento social.

DESCRITORES: Gravidez; Período pós-parto; Isolamento social; Pandemias;

RESUMEN

Objetivos: conocer la vivencia de mujeres que compartieron la vivencia del ciclo embarazo-puerperio durante la Pandemia del Covid-19 en un grupo de aplicación de mensajes creado para complementar las actividades educativas de un grupo de gestantes. **Método:** estudio cualitativo, descriptivo y exploratorio. Los datos provienen de los mensajes de 94 mujeres participantes de Grupos de Embarazadas y Parejas Embarazadas realizados en 2020, vinculados a un proyecto de extensión de una Universidad del Sur del país. **Resultados:** presentan sentimientos relacionados con la ausencia de contacto físico con familiares y amigos, dudas y desafíos encontrados durante el embarazo y el puerperio, miedos e incertidumbres en relación al proceso de trabajo de parto y nacimiento. **Conclusión:** el grupo de gestantes mediado por una aplicación de mensajería demostró ser un aliado en la interacción entre mujeres, possibilitando la educación en salud y la creación de una red de apoyo respetando el distanciamiento social.

DESCRIPTORES: Embarazo; Periodo posparto; Aislamiento social; Pandemias.

INTRODUCTION

The gravid-puerperal cycle is a unique phenomenon marked by physical, psychological, and social changes, along with emotions that become more evident as childbirth approaches. During childbirth, women exercise autonomy, actively deciding on their own care. In the postpartum period, there is a process characterized by learning, expectations, desires, and insecurities in the face of everything that will be experienced, defining the acquisition of new roles and responsibilities.¹⁻²

Shared care and appropriate counseling during prenatal care, through health education activities, can minimize doubts and fears, stimulate positive feelings, and empower women for autonomy during the childbirth and postpartum process.¹⁻⁴ Similarly, health team support is crucial for women to understand the physiology of labor and be guided and prepared to deal with challenges and discomforts.⁵

Prenatal care during the Covid-19 pandemic underwent various changes with measures adopted to preserve life and reduce the risk of transmission for healthcare professionals.⁶⁻⁸

In this scenario, health teams sought strategies to maintain prenatal care, such as teleconsultations and online educational activities, facilitating information exchange, interactions, and interdisciplinary care.⁹ Among mobile applications, WhatsApp® stands out for its accessibility, dynamism, and low cost, reaching diverse audiences and serving as a tool to meet communication demands between healthcare professionals and a specific audience.¹⁰⁻¹¹

The use of messaging app groups has been growing and has been an important means of interaction for women experiencing the gravid-puerperal cycle during the pandemic. Therefore, this study is

justified by the importance of obtaining concrete information about the contribution of technology to the exchange of information, doubts, and feelings experienced by pregnant women.

The study aims to understand the experiences of women who shared the experience of the gravid-puerperal cycle during the Covid-19 pandemic in a messaging app group created to complement educational activities for a group of pregnant women.

METHOD

This is a qualitative, descriptive, and exploratory research conducted with pregnant women enrolled in an extension project at a Public University in the South of Brazil. The project aims to develop educational and interdisciplinary activities for pregnant women, postpartum women, and their companions in primary healthcare and supplemental healthcare. Due to pandemic-related sanitary measures, in-person activities were suspended, and the group adapted by conducting weekly online meetings through online meeting platforms.

The creation of the WhatsApp® group occurred upon confirmation of participant enrollment to complement health education activities. In the interaction group, pregnant women and their companions can clarify doubts, share feelings and experiences. The team monitors messages daily and provides guidance based on demands. WhatsApp® conversations are periodically saved in the group's database for future research.

Participants included women enrolled in three pregnant women groups held in 2020 (G96, G97, and G98), conducted between March and September 2020, during the first semester of the pandemic. Inclusion criteria were being over 18 years old, having participated in

online group meetings, and having interacted in the messaging app groups. The exclusion criterion was incomplete registration form.

Data collection took place from October to November 2020, using participant registration forms and messaging app conversation files. The principal researcher accessed the WhatsApp® groups, saved all messages, and excluded eight participants with incomplete registration forms.

Data analysis was conducted collaboratively, involving data organization, classification, and final result analysis.¹² Information from 1,499 pages of conversations among participants was accessed and read in full. Horizontal reading of conversations highlighted excerpts related to feelings, doubts, and pandemic-related information. Transversal reading identified similarities and connections with central ideas, which were color-coded and distributed into major themes, forming the study categories.

Ethical aspects were respected, and approval was obtained from the Ethics and Human Research Committee (Opinion No. 4,079,102). The informed consent form was administered in the first pregnant women group meeting. Participant identification used the letter P (participant), followed by the letter G (group) and sequentially assigned group number. The Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines were followed for guidance and methodological rigor.

RESULTS

Ninety-four women aged between 21 and 42 participated in the study. The majority were married (45) or in a stable union (32), and 17 women declared themselves single. Regarding education, two had completed elementary school, 16 had completed high school, and 76 had completed higher education. All participants underwent prenatal care, with follow-up in the public healthcare system (33), private healthcare system (52), or both (9). Seventy-seven women were primigravida, 12 secundigravida, and five multigravida.

The results were structured into three categories described as follows:

Sharing feelings generated by social isolation

Participants shared feelings resulting from social isolation, highlighting the absence of physical contact with family and friends during pregnancy, doubts about visits to the newborn, and challenges encountered in the postpartum period.

One participant described her experience of pregnancy during the pandemic.

"In the beginning of the pregnancy, I had many dreams and plans [...] I dreamt of flaunting my big belly on the streets, but it grew, and not even my friends could contemplate it in person. [...] There were so many plans and dreams, from the deepest to the silliest [...] And we understand that not everything goes as planned and that, in fact, many things are not really important or necessary. In truth, all we need is LOVE." (P30G97)

A concern expressed was about visits to the newborn and the exchange of information regarding how participants were organizing visits and family interactions.

"[...] I wanted to know from you, how are you dealing with visits and family interactions during the pandemic? [...] Only the four grandparents met the baby. I confess it's very difficult to keep it this way. [...] I wanted to know if we are the only ones in this isolation or if there are more people like us. I'm suffering from the distance and the pressure from people wanting to come here." (P19G96)

"Here we are isolated, received only one visit [...] they wore masks all the time. It's really hard, but I'm afraid to take risks." (P4G96)

Interaction in the messaging group facilitated the expression of feelings and experiences about the postpartum period amid the pandemic, encompassing emotional aspects, feelings, and the importance of exchanges within the group.

"[...] how do you feel emotionally? In general, I'm fine, but there are days when I feel anxious, cry, feel guilty, tired, lonely, it's really difficult. [...] I think it's important to share our emotions, our very peculiar state. Still in the midst of isolation." (P18G96)

"[...] I find this exchange, these confessions [...]. It's difficult to confide in people who are not experiencing this [...] This pandemic thing, I even try not to think too much about it so I won't go crazy." (P6G96)

Prenatal care during the pandemic

One of the main concerns found in the messages was about prenatal care. The cancellation of appointments in public and private healthcare services was a reality experienced by pregnant women in the first semester of the pandemic.

"[...] I had an appointment today; I'm 29 weeks pregnant [...]. They called me from the clinic saying that due to the coronavirus, they are canceling all appointments for pregnant women who are not high risk [...] Is it right to be without monitoring?" (P6G96)

"I go to a private clinic, and appointments were canceled until further notice." (P13G96)

Participants who had their appointments maintained felt afraid to attend the healthcare service due to the pandemic and the risk of contamination. At the same time, they emphasized that all protective measures were taken to avoid contagion, making them feel more at ease during in-person appointments.

"I was afraid of how the clinic would be, but I was amazed by their precautions. I just came back from the prenatal appointment, and it was calm; they are only attending by appointment, someone is at the door screening who can enter or not. There was only me and another pregnant woman leaving the room, and the

staff at the clinic, all wearing masks, and the environment was well sanitized." (P15G96)

"I go to the clinic, and it wasn't canceled because I'm very close to delivery. But I'm really scared to go there." (P4G96)

Participants shared their feelings regarding alternating online and in-person appointments. They reported that in the first and second trimesters of pregnancy, consultations were conducted via messaging app, and in the third trimester, in-person appointments began. One participant highlighted that, due to a high-risk pregnancy due to hypertension, she had emergency consultations.

"In my case, I have online appointments alternating with in-person ones. Today, they informed me that in the next one, they will request the third-trimester exams. From now on, the appointments will be every two weeks." (P39G98)

"I'm having prenatal care entirely through the public healthcare system, and I've been doing consultations only via WhatsApp since the beginning of the pandemic. As I had high blood pressure, they treated me as if it were an emergency consultation a few times at 32 weeks, and now, at 36 weeks, they started regular consultations. [...] But it was really complicated because I only heard the baby's heartbeat during ultrasound exams." (P31G98)

Women emphasized that, despite being an atypical time, prenatal care is the right of women and babies. They shared that they sought private care due to uncertainties and, in some cases, due to the lack of support from the Unified Health System (SUS). On the other hand, other women reported that gestational follow-up in the SUS was maintained.

"I understand that the moment is complicated, and they are prioritizing emergencies. But prenatal care is every woman's right." (P45G98)

"In prenatal consultations at the clinic, I'm always attended by a team (doctor, nurse, and residents). In addition, I also have weekly sessions with a psychologist and dentist, and a nutritionist (when necessary)." (P39G98)

"I discovered the pregnancy right at the beginning of the pandemic, and they told me there was no forecast for prenatal care to pregnant women to resume. I went straight to private care and didn't even try anymore." (P13)

Presence of the companion and doula during childbirth

Before the establishment of protocols, some maternity hospitals prohibited the presence of companions and doulas throughout labor, childbirth, and immediate postpartum. The possibility of experiencing childbirth without the presence of a companion and/or doula generated feelings of apprehension, uncertainty, and fear, leading participants to seek legal information to ensure the presence of a companion.

"I apologize for bringing up this subject, but since we talked about the possibility of the baby's father not being able to enter the delivery room with the mother, I searched for legal infor-

mation about my rights and the baby's right. And I found the following: 'Federal Law No. 11,108, the SUS is obliged to allow the presence of a companion.' I personally will have a nervous breakdown if I have to enter alone." (P4G97)

"I might be wrong, but I found this unnecessary; the Doula is extremely important, and I get sad just thinking that I'll be without her support during childbirth." (P22G96)

In the group interactions, possibilities for coping with prohibitions on the right of the companion or doula during childbirth were discussed, such as filing a legal request to ensure the right to a companion during childbirth.

Fears and uncertainties about hospital childbirth arise in the group, especially regarding the permanence of the companion in a period when protocols were not established and were undergoing constant changes. The idea of a home birth is expressed by one of the women. One participant brought up the possibility of early hospital discharge due to the distress of being alone during hospitalization.

"[...] the state of public calamity makes some rights 'available,' something that wouldn't be possible in a normal situation. [...] My husband and I are thinking about some legal measures. It's his right to accompany me, but everything is uncertain [...] I confess that I was quite apprehensive, and I'm already starting to reconsider the possibility of a home birth." (P19G96)

"I hope we can at least be discharged earlier [...]. (P22G97).

DISCUSSION

The social distancing imposed by the pandemic deprived pregnant women of social interaction, leading to feelings of loneliness, distress, uncertainty, and frustration.⁹ The visitation of family members after childbirth was reconsidered in the family structure. Pregnant women reported many doubts regarding pregnancy and childbirth during the pandemic, highlighting the fear of contracting the disease and concerns about the presence of a companion during childbirth.^{9,13} Consequently, pregnant women may experience psychological impacts that alter their usual behavior during the pandemic. These aspects may be associated with anxiety, apprehension, anger, reduced concentration, fatigue, loneliness, and lack of motivation.¹⁴ These negative constructs reverberate throughout the maternity experience from pregnancy to the postpartum period.¹⁵

To minimize the impacts generated by the pandemic, new perspectives and experiences are expanding the use of health education tools.¹⁶ Digital technologies have been standing out in the Brazilian scenario as facilitating tools for healthcare, mainly in the reorganization of services, improving access to quality care in response to the demands generated by the Covid-19 pandemic.¹⁷⁻¹⁸ The use of mobile applications has been effective in promoting prenatal adherence, contributing to improving care and becoming a strong ally in maternal health promotion to enhance maternal health indicators.¹⁹

The pandemic tested human capacity to make sense of suffering, challenging society to find ways to reduce the impacts on mental health.²⁰ In this perspective, healthcare professionals need to reflect

on their professional practice to alleviate or prevent the impacts of Covid-19 on the mother-baby dyad. Furthermore, it requires the creation of care strategies that involve support, bonding, and provide well-being to women during pregnancy and the postpartum period, considering that this is a period marked by feelings of fear and uncertainty.²¹⁻²²

Among the care strategies, the Pregnant Women's Group becomes a knowledge aggregator and facilitates the working of psychological and sociocultural aspects of women and companions, contributing to making decisions based on scientific evidence,²³ especially in the face of so many changes imposed by the pandemic. Thus, the creation of educational groups via WhatsApp® becomes a care tool that encourages the sharing of doubts and concerns related to experiences in the gravid-puerperal cycle among participants. This technological tool does not replace health education actions but can complement them and become a fruitful space for interaction among professionals, pregnant women, and families.

The recommendations of the Ministry of Health ensure that even during a pandemic, prenatal care must be guaranteed, providing an opportune moment for healthcare professionals to provide guidance on the rights of pregnant women. Prenatal follow-up, when possible, can be done through telehealth to try to space out face-to-face consultations.⁸

In the first semester of the pandemic, some hospitals adopted restrictive measures regarding companions during childbirth at the beginning of the pandemic, violating Law No. 11,108, dated April 7, 2005, which guarantees parturients the right to have a companion present during labor, childbirth, and immediate postpartum. The possibility of the absence of a companion generated many feelings and the pursuit of their rights by pregnant women. The role of the companion during labor involves emotional, physical, informational, and mediation dimensions, conveying confidence, comfort, and better emotional and psychological well-being to women.²⁴

Social media has been used by many pregnant women to express their fears of childbirth, their anxieties, and their needs in the face of a state of vulnerability caused by the pandemic. Thus, contributing to more positive childbirth experiences, satisfaction, mental health, empowerment, support, and quality of life, considering that these voices reach society, healthcare professionals, managers, and politicians and mobilize the creation of safe protocols for the mother-baby dyad.¹⁵

The study's limitations are related to data collection through the messaging app conversation file, which did not allow for a deepening of the raised themes. Further research with this theme, combined with other data collection techniques allowing for in-depth discussions of interactions via messaging apps, is suggested.

CONCLUSION

The pandemic has been and continues to be challenging for society as a whole, especially for pregnant women and postpartum women who are at higher risk for Covid-19. The messaging group via the application, as a complementary tool to online educational activities, became a space where women could share experiences of the gravid-puerperal cycle amid the pandemic, supported by qualified

healthcare professionals to address raised doubts. Simultaneously, it facilitated the construction of a support network where women could share their daily experiences and minimize the effects of social isolation safely in the first semester of the pandemic.

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