Understanding the Impact of the COVID-19 Pandemic on the Prenatal Care of a Group of Pregnant Hispanic Women living in Puerto Rico

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Objective: To understand the impact of the COVID-19 pandemic on the prenatal care of pregnant Hispanic women living in Puerto Rico.

Methods: This was a cross-sectional study. The participants' profiles were determined through an online questionnaire to analyze COVID-19–related behaviors and experiences.

Results: Our sample comprised 131 women with an average age of 28 years (±5.3 years). Most of the population was pregnant at the time of the interview (74.8%; n = 98), and the rest were in their post-partum period. Overall, 46.5% (n = 61) of the patients indicated that their prenatal care did not change during the pandemic. In addition, 92.50% (n = 111) reported not altering their plans for breastfeeding their babies. Overall, 77.86% of the participants reported feeling scared or overwhelmed due to the current pandemic, and 97% agreed that COVID testing should be performed as a screening method in all pregnant females.

Conclusion: Our findings describe the characteristics of pregnant Hispanic females living in Puerto Rico. The majority reported adhering adequately to their health services, with few or no changes in their prenatal care. [*P R Health Sci J 2023;42(2):172-174*]

Key words: Prenatal care, Hispanics, COVID-19

Certain respiratory infections are believed, historically, to put pregnant women at severe risk of morbidity and/or mortality (1). Because respiratory diseases, including COVID-19, might increase the risk for pregnancy complications, optimal management provided for pregnant women at healthcare facilities should be individualized for adequate maternal and fetal monitoring (1,2). However, due to government restrictions, physicians might have been working on limited schedules and limited resources, which could influence the obstetrical care that their patients would normally receive and might include deficiencies in any one or combination of the following areas: follow-up prenatal care, resource availability, and family planning (2). These limitations directly impact prenatal care to the extent that some obstetrical services have begun to consider routine ultrasounds as being nonessential and have suspended them indefinitely (2). The World Health Organization found that disruptions to healthcare services were greatest in lower-income countries, according to the surveyed participants (3). There are estimates that reducing essential maternal and child health interventions may cause more than a million child deaths (4). Recommendations from the Centers for Disease Control and Prevention (CDC) and the American College of Obstetrics and Gynecology suggest that there is no need to be concerned about viral transmission through breast milk (5,6). Therefore, maternal plans for breastfeeding should remain unchanged, unless the mother is confirmed or suspected to have COVID-19, in which case the use of protective equipment, including a face mask, is encouraged during breastfeeding (5,6).

It is well known that COVID-19 is considered to be a barrier to adequate medical care; fear, infectious symptoms, childcare needs at home, and the COVID-19 mitigation policies of healthcare providers, separately or in combination, can lead to changes in prenatal care and reductions in ultrasound visits (7). In Puerto Rico, a designated COVID-19 Medical Task Force provided direct guidance of medical care and all its aspects (8). The COVID-19 Medical Task Force has suggested several alternatives, including different plans to ensure continuous medical care (e.g., monitoring calls, public campaigns to urge people to seek medical care when they need it, and better preparedness to reduce the extent of missed care) (8). Their recommendations for the hospital and medical management of patients included increasing both telehealth use and the number of clinical staff available (to minimize the impact of the epidemic on other health services) (9).

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A meta-analysis performed by the CDC suggested that risk factors such as obesity, older age, chronic hypertension, and diabetes predicted worse outcomes for pregnant women with COVID-19 but that younger women were at a lower risk of hospitalization (10). It has been found, as well, that underlying medical conditions and self-perceived health play a critical role in both their risk of infection and the outcomes when infected (10).

In this study, we aimed to further investigate the effect that COVID-19 has had on obstetrical care and how it is currently changing the day-to-day responses of pregnant females. Specifically, we wanted to understand the impact of the virus on prenatal care as a whole, including, but not limited to, the number of medical visits and routine care appointments, compliance with guidelines regarding laboratory test screenings, prenatal vitamin availability/accessibility, and the acceptance of COVID-19 protective measures. Understanding COVID-19's effect on pregnant women and their infants will help formulate healthcare recommendations that are specific to this population. Our findings also support the need to include maternal and fetal data on current COVID-19 surveillance systems, which data would help obstetricians to better understand their patients' needs.

Methods

This was a cross-sectional study. A HIPAA-compliant online questionnaire was created and initially distributed to a sample of 8 participants of the study population for validation. Of those participants, only 2 gave feedback resulting in the removal of redundancies. The recommendations were incorporated into the amended study, and the revised questionnaire was used. The questions regarding quality of life were obtained (by license approval) from the SF-12v2, a validated health survey. The inclusion criteria were being from 21 to 44 years of age, currently being a resident of Puerto Rico, and either being pregnant or having given birth or being pregnant and having a due date of from June 2020 through June 2021. The online survey consisted of 5 sections, the completion of which took approximately 30 minutes. It included a sociodemographic profile, a medical and gynecologic history, a history of COVID-19 symptoms (if present), the patient's perception of COVID-19 and its impact on prenatal care and the patient's perception of how COVID-19 has affected delivery options and postnatal care, as well as its impact on quality of life. The questionnaire, once established, was distributed via social media platforms, flyers (primarily in a tertiary care hospital setting), and private practice medical offices offering primary and secondary healthcare. Questions were directed towards understanding prenatal care practices during the COVID-19 pandemic, adherence to public health guidelines, and (the participant's) emotional and physical status during the COVID-19 pandemic. The study period lasted for one year, and data were collected from August 2020 through February 2021.

Next, data analysis was performed, including descriptive statistics and traditional bivariate methods, to better understand COVID-19–related behaviors and experiences. The study was approved by the Institutional Review Board of the University of Puerto Rico Medical Science Campus and assigned protocol number 1050120.

Results

Our sample comprised 131 women who completed at least 50% of the questionnaire, with a study response rate equivalent to 76.6%. The sociodemographic data from the participants indicate that 87.79% (n = 115) had a post-secondary education and that 51.16% (n = 66) had government-issued insurance. The average age of the participants was 28 years (±5.3 years). Most of the population was pregnant at the time of the interview (74.8%; n = 98); 65% were in their third trimester, and 49.60% were pregnant for the first time. A small proportion of the participants (12.98%; n = 17) reported having prenatal care appointments canceled by their physicians during the pandemic lockdown. At the same time, fear of contact exposure caused 10.69% (n = 14) to cancel 1 or more prenatal care appointments, while limited access to transportation led 5.56% (n = 9) to cancel 1 or more prenatal care appointments. Most of the participants, 89.52% (n = 111), also referred to having used prenatal vitamins, as recommended. Overall, of those that answered, 46.5% (n = 61) of the patients indicated that their prenatal care had not changed during the pandemic, including 92.50% (n = 111) who reported not altering their plans for breastfeeding their babies. A total of 0.76% (n= 1) of the patients decided to continue prenatal care with a midwife and stopped making prenatal visits during the COVID-19 pandemic. A Wilcoxon–Mann–Whitney test showed a Z-value of -2.172 (significant at $P = .029$), indicating a significant difference between primigravids, who reported a better health status (described as excellent/very good) than did the multiparous women in the sample. Overall, 77.86% of the participants reported feeling scared or overwhelmed due to the current pandemic, and 97% agreed that COVID testing should be performed as a screening method in pregnant females. Simultaneously, there was a significant difference in the proportion of face mask usage before (34%) and after (92%) the government ordinance regarding COVID mitigation efforts (chi-square test; $P < .001$).

Discussion

Our findings describe the characteristics of pregnant Hispanic females in Puerto Rico, the majority of whom reported adequately adhering to their prenatal care. Public health efforts, including the recommendations of the COVID-19 Medical Task Force to educate the general population about and encourage the use of telehealth and alternate forms of virtual medicine, might have been helpful in maintaining the continuity of medical services in said population, but especially in pregnant females. As the findings suggest, the majority of the pregnant Hispanic females in our sample population continued their prenatal care as mandated, with a minimum number of cancellations of their appointments for same. In addition, these women reported no interruptions in their use of prenatal vitamins and no changes to their plans to

directly breastfeed their babies. Also, the primigravidae in our group demonstrated a significant difference in the perception of their own health status and were more likely to report themselves to be in good health than were their multiparous counterparts.

In general, participants were compliant with public health agency guidelines for COVID-19 mitigation efforts and reported a significant increase (92%) in the use of protective equipment, such as face masks. These findings are consistent with those of Bohnhoff, Davis, et al., who revealed that more than 90% of their pregnant sample also reported mask wearing and frequent hand washing (11). Our participants were also conscious of the effects of the virus on the population and reported that they would feel more confident regarding obstetrical care if COVID-19 testing were to be offered as a screening method to all pregnant females. Overall, preventive measures and educational efforts in Puerto Rico were successful in guaranteeing the health and well-being of Puerto Ricans. However, the study's limitations include poor compliance in completing the questionnaire, which resulted in a limited number of participants. Although 46.5% (n = 61) of the participating patients indicated that their prenatal care did not change during the pandemic, limited information was obtained regarding what changes were experienced by the remaining majority. In terms of our results regarding prenatal care in the time of COVID-19, our current findings are not sufficient to generalize to a wider population of pregnant women. Still, these results give an important insight into how pregnant Hispanic females in Puerto Rico responded in terms of their care during the pandemic. This is the first study to take into consideration the impact of the pandemic and public health guidelines regarding the obstetric population on the island. Nonetheless, further epidemiologic data, including cohort studies, would be beneficial if the pandemic's impact on prenatal and postnatal care is to be better assessed. Recommendations for future studies include evaluating the proportion of pregnant females who would be willing to get the vaccine and those who have already been vaccinated and their perceptions of vaccination during the gestational period.

Resumen

Objetivo: Comprender el impacto de la pandemia de COVID-19 en el cuidado prenatal de mujeres hispanas embarazadas que viven en Puerto Rico Métodos: Este es un estudio transversal. El perfil de las participantes se estableció a través de un cuestionario en línea para analizar comportamientos y experiencias relacionadas con COVID-19. Resultados: Nuestra muestra está formada por 131 mujeres, con una edad media de 28 años (± 5.3). La mayoría de la población estaba embarazada al momento de la entrevista (74.8%, n = 98), el restante se encontraba en su período postparto. En general, el 46.5% (n = 61) de las pacientes indicaron que su cuidado prenatal no cambió durante la pandemia, mientras que el 92.50% (n = 111) de las participantes informaron que sus planes de lactancia no cambiaron. En general, el 77.86% de las participantes informaron sentirse asustadas o agobiadas debido a la pandemia actual, y el 97% estuvo de acuerdo en que la prueba de COVID debe realizarse como método de detección rutinario en todas las mujeres embarazadas. Conclusiones: Nuestros hallazgos describen el perfil de las mujeres hispanas embarazadas en Puerto Rico. La mayoría informó una adherencia adecuada a los servicios de salud con pocos o ningún cambio en su cuidado prenatal.

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