

Coronavirus (COVID-19) Infection and Pregnancy: A Randomized Web-Based Cross-Sectional Survey on a Sample of Pregnant Women

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Abstract

Objective: Analysis of the impact of the Coronavirus (COVID-19) Infection on pregnant women.

Design: A randomized web-based cross-sectional survey during Covid-19 first wave.

Method: The sample consists of 250 women, from 19 to 42 years old, randomly recruited. Patients who declined to participate to the questionnaire or patients with respiratory symptoms or suspected/confirmed diagnosis of Covid-19 or with any member of the family been tested positive were excluded (final sample 250-3 = 247). They were during the first (n = 5, 2,02%), the second (n = 45, 18,22%), the third trimester (n = 169, 68,42%) or post-partum (n = 28, 11,34%) during the Covid-19 outbreak in USA, United Kingdom, Ireland and Italy (March 2020 - October 2020). The survey was anonymous and a free Google form software was used.

Results: From the data collected, information sources utilised by patients were official websites - like Who, National Health Service website, Hospital website - (68%), internet (56.7%) and television (45.3%). Social Media (32.3%), newspaper (19%) and social networks - like facebook and whatsapp - (9.3%) were less used.

Most of the pregnant women analyzed don't feel safe to be pregnant during the Covid-19 outbreak (61,94% vs 38,06%). In fact, 75.7% of the women feel worried and 39.2% feel scared. Women are mostly concerned about their unborn child (88.7%), older relatives (48,9%), then their partner (34%), their other children (32,3%) and themselves (29,9%). However, despite the currently evidences suggesting no increased risk of miscarriage or early pregnancy loss, confirmed vertical transmission with no severe complication with newborns, 86.6% of the women feel worried for their baby in case of been tested positive.

Restriction for partners, including antenatal appointment, women admitted to maternity services for antenatal and postnatal care are in place in most settings analyzed (90.7% vs 9.3%). However, just for labour and birth, only 77,3% of the birth partners were allowed or will be allowed to attend it.

Regarding the care during the Covid-19 outbreak, 80.2% of the women analyzed felt satisfied of the care received. However, just 55,9% felt that they have got an informed choice about their option. Overall, 87.8% felt supported by healthcare workers.

Conclusion: This pandemic is resulting in an increased amount of anxiety in the general population and especially in pregnant women as pregnancy represents an additional period of uncertainty. Pregnant women continue to need at least as much support, advice, care and guidance in relation to pregnancy, childbirth and early parenthood as before the pandemic. As suggested by the latest guidelines women should be permitted and encouraged to have a birth partner present with them during their labour and birth. Having a trusted birth partner present throughout labour is known to make a significant difference to the safety and well-being of women in childbirth. Women must still be able to make decisions about the care they receive in line with the principles of informed consent.

Keywords: Labour; Pandemic; Delivery; Covid-19; Woman; Pregnancy; Midwifery; Obstetrics; Newborn

Introduction

On January 9, 2020, the WHO stated that Chinese health authorities have identified a new strain of coronavirus never before identified in humans, provisionally called 2019-nCoV and later officially classified under the name SARS-CoV-2 [1]. The virus is associated with an outbreak of pneumonia cases recorded as of December 31, 2019, in the city of Wuhan, central China. The COVID-19 pandemic is an ongoing global pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus. Globally, infections with the novel SARS-CoV-2 virus are continuously rising with mounting numbers of deaths. International and local public health responses, almost in synchrony, imposed restrictions to minimize spread of the virus, overload of health system capacity and deficit of personal protective equipment (PPE) [2]. Although in most cases the symptoms are mild or absent, SARS-CoV-2 infection can lead to serious acute respiratory disease and multisystem failure. SARS-CoV-2 has caused over 12 million infections and more than 550,000 deaths. Pregnant women have been considered potentially vulnerable to severe SARS-CoV-2 infection [3,4]. Physiological changes during pregnancy have a significant impact on the immune system, respiratory system, cardiovascular function and coagulation. These may have positive or negative effects on COVID-19 disease progression.

Objectives of the Study

The objective of this study is the analysis of the impact of the Coronavirus (COVID-19) Infection on pregnant women. In particular, we analyzed where the women were getting information from, how they felt, for what they were more worried about, what kind of changes they found in the midwifery care that they were used for. We designed an international web-based cross-sectional survey using a Free Google Forms Anonymous Questionnaire that was administered to the women in the period between the month of March 2020 and the month of October 2020 (first outbreak).

Materials and Methods

The sample consists in 250 women randomly recruited from USA, United Kingdom, Ireland and Italy from 19 to 42 years old, who were during the first (n = 5, 2,02%), the second (n = 45, 18,22%), the third trimester (n = 169, 68,42%) or post-partum (n = 28, 11,34%) during the first outbreak. Patients who declined to answer the questionnaire or patients with respiratory symptoms or suspected/confirmed diagnosis of Covid-19 or with any member of the family tested positive were excluded (n = 3).

The questionnaire administered to women, after clarification of the contents and the purpose of the survey, consists of multiple closed-ended questions and an open answer on what they would have done differently in the care received. We tried to formulate the questions in a way simple and clear to give way to women to respond without difficulty.

Discussion

Q: Considering the Covid-19 epidemic, you get informed from...

From the data collected, information sources utilized by patients were official websites - like Who, National Health Service website, Hospital website - (68%), internet (56.7%) and television (45.3%). Social Media (32.3%), newspaper (19%) and social networks - like facebook and whatsapp - (9.3%) were less used.

Q: Considering the covid-19 epidemic, you feel...

Most of the pregnant women analyzed don't feel safe to be pregnant during the Covid-19 outbreak (61,94% vs 38,06%).

Q: Considering the covid-19 epidemic, you feel mostly worried for...

In fact, 75.7% of the women feel worried and 39.2% feel scared. Women are mostly concerned about their unborn child (88.7%), older relatives (48,9%), then their partner (34%), their other children (32.3%) and themselves (29,9%).

Q: Do you feel worried for your baby in case of being tested positive?

However, despite the currently evidence suggesting no increased risk of miscarriage or early pregnancy loss, confirmed vertical transmission with no severe complication with new-borns, 86.6% of the women feel worried for their baby in case of been tested positive.

Q: Do you feel safe to be pregnant during the Covid-19 pandemic?

More than half of the women (65,6%) didn't feel safe to be pregnant during the outbreak.

Q: Is your partner able to attend appointments with you?

Restriction for partners, including antenatal appointment, women admitted to maternity services for antenatal and postnatal care are in place in most settings analyzed (90.7% vs 9.3%).

Q: Will your partner/has your partner been able to stay with you during labour and birth?

However, just for labour and birth, only 77,3% of the birth partners were allowed or will be allowed to attend it.

Q: Do you feel that you have got an informed choice about your options?

Just 55,9% felt that they have got an informed choice about their option.

Q: Do you feel supported by healthcare workers?

Overall, 87.9% felt supported by healthcare workers.

Q: Do you feel satisfied of your care?

Regarding the care during the Covid-19 outbreak, 80.2% of the women analyzed felt satisfied with the care received.

Q: If not, what would you have done differently?

There are many insecurities that women have developed during the first outbreak: feeling alone, not supported, not having the community care, not creating the special connection with the midwife, not having the new-born care.

Conclusion

This pandemic is resulting in an increased amount of anxiety in the general population and especially in pregnant women as pregnancy represents an additional period of uncertainty [5-7]. Pregnant women continue to need at least as much support, advice, care and guidance in relation to pregnancy, childbirth and early parenthood as before the pandemic. They should be counseled about the increased risk for severe disease from SARS-CoV-2 and the measures they can take to protect themselves and their families from infection [8]. These measures include practicing physical distancing, washing their hands regularly, and wearing a face covering (if indicated). Women should be permitted and encouraged to have a birth partner present with them during their labour and birth. Having a trusted birth partner

present throughout labour is known to make a significant difference to the safety and well-being of women in childbirth. Women must still be able to make decisions about the care they receive in line with the principles of informed consent. Following the international recommendation [9-13], the presence of covid-19 infection should not deter women from receiving antenatal care nor should the obstetric treatment be delayed during labour. Decisions for timing and mode of delivery should be individualized based on obstetric indications and maternal-fetal status. It is also important to develop clinical pathways and procedures to minimize risk of covid-19 providing high quality care for women throughout the pandemic.

Bibliography and siteography

1. Novel Coronavirus (2019-nCoV) (2021). <https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200121-sitrep-1-2019-ncov.pdf>
2. Madjunkov M., *et al.* "A comprehensive review of the impact of COVID-19 on human reproductive biology, assisted reproduction care and pregnancy: a Canadian perspective". *Journal of Ovarian Research* 13.1 (2020): 140.
3. Clinical management of COVID-19: interim guidance (2021). interim guidance (2021) <https://www.who.int/publications/i/item/WHO-2019-nCoV-clinical-2021-1>
4. Wastnedge EAN., *et al.* "Pregnancy and COVID-19". *Physiological Reviews* 101.1 (2021): 303-318.
5. Abdoli A., *et al.* "The COVID-19 pandemic, psychological stress during pregnancy, and risk of neurodevelopmental disorders in offspring: a neglected consequence". *Journal of Psychosomatic Obstetrics and Gynecology* 41 (2020): 247-248.
6. Wastnedge EAN., *et al.* "Pregnancy and COVID-19". *Physiological Reviews* 101.1 (2021): 303-318.
7. Nowacka U., *et al.* "COVID-19 Pandemic-Related Anxiety in Pregnant Women". *International Journal of Environmental Research and Public Health* 18.14 (2021): 7221.
8. Counseling for Maternal and Newborn Health Care. <https://www.who.int/publications/i/item/9789241547628>
9. Interim guidance on pregnancy, childbirth, breastfeeding and care of infants (0-2 years) in response to the COVID-19 emergency (2021). https://www.iss.it/documents/5430402/0/Rapporto+ISS+COVID-19+2_2021_EN.pdf/421a0bc6-1933-aa77-6b39a7860d866a16?t=1615472502820
10. SPECIALE GRAVIDANZA E COVID19. <https://www.aogoi.it/iniziative/speciale-gravidanza-e-covid19/>
11. COVID-19 and pregnancy. <https://www2.hse.ie/conditions/covid19/people-at-higher-risk/covid19-and-pregnancy/>
12. Pregnancy and coronavirus (COVID-19). <https://www.nhs.uk/conditions/coronavirus-covid-19/people-at-higher-risk/pregnancy-and-coronavirus/>
13. COVID-19 and pregnancy: Staying safe, giving birth and getting vaccinated. <https://www.unicef.org/rosa/stories/covid-19-and-pregnancy>
<https://www.unicef.org/rosa/stories/covid-19-and-pregnancy>

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