Knowledge, Attitudes and Practices of Breastfeeding during a Period of Confinement for The Benefit of Women Who Have Given Birth at CHU Mohamed VI; Marrakech

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Abstract

Introduction: Breastfeeding your child after birth seems to be a natural gesture, however breastfeeding a newborn born to a mother with COVID-19 is not always easy, although current data does not show any risk of transmission of the virus. COVID-19 disease through breast milk. The objective: was to assess the knowledge and practices of mothers in the post natural period about breastfeeding during the Covid-19 period. Materials and methods: The survey was conducted among women who delivered in the maternity of Mohamed VI university hospital of Marrakech using a pre-established questionnaire. Results: the study was carried out on 253 mothers. Only 25% had received education about breastfeeding and Special Precautions to be taken by mothers suspected or found to be positive for COVID-19, of which 10% was by health personnel. The husband had made part in 15%. 27.5% know that the virus is not transmitted through breast milk, 30% know that a mother affected by the COVID-19 virus can breastfeed, 22% know the precautions to be taken when breastfeeding if mothers affected of COVID-19 to avoid transmitting it to the baby, 25% know that The mother affected with the COVID-19 virus can touch their newborn baby and hug him. 70% respect the quarantine rules. And 90% of women have disinfection products in their homes. Conclusion: It is essential to sensitize, encourage and support new mothers suspected or proven positive for COVID-19 for breastfeeding, hence the interest of a well codified strategy.

Keywords: COVID-19, Breastfeeding, SARS-CoV-2, Morocco, Newborn.

INTRODUCTION

Corona virus disease-2019 (COVID-19), declared a pandemic on March 11, 2020, by the World Health Organization (WHO), started as an outbreak of pneumonia in Wuhan, China, in December 2019. Later, it was discovered that the disease was caused by a single-stranded RNA virus, which was named SARS-CoV-2 (severe acute respiratory syndrome coronavirus-2). The virus is known to be transmitted by droplets of an infected individual and leads to a variety of symptoms affecting respiratory and other systems in the body [1]. COVID-19 has been spreading globally very rapidly [2].

Pregnant women and newborns can be considered a high-risk population during the COVID-19 pandemic because their vulnerability to acquire any infection is higher in general due to lowered immunity during this period. Even though initial data from smaller studies have suggested that the pregnancy does not increase the risk of getting COVID-19 infection and the severity of illness is not different from the general population, caution still must be exercised by both the pregnant women and their clinicians as there is a lot that we are not aware of this disease [3].

Breast milk provides the main source of nourishment in the 1 year of life of a newborn. In some societies, lactation continues to make an important contribution to the child’s nutrition for 18 months or longer. In the world's more affluent societies, breastfeeding appears to have become a lost art, and the feeding bottle has usurped the breast.[4] Breast milk has nutritional, immunological, behavioral, and economic benefits and helps to build mother-infant bonding. Breastfed children have lower rates of childhood cancers, infections, asthma, allergies, childhood


267
diabetes, gastrointestinal illnesses and infections that can damage their hearing. Breastfeeding benefits is not just restricted to child, it protects the mother who has breastfed from developing ovarian and premenopausal breast cancers, and it also reduces the risk of postpartum bleeding and osteoporosis [5].

During the COVID-19 pandemic, concerns have been raised on whether the SARS-CoV-2 virus could be transmitted from COVID-19 positive mother to the newborn through breast milk.

Given that this disease is of recent appearance and that the data on its etiopathogenesis are still unknown, and more particularly during breastfeeding, the objective of this work was to assess the knowledge and practices of new mothers about breastfeeding in times of Covid-19, by identifying and filling gaps in breastfeeding practices, by strengthening positive influences.

MATERIAL AND METHODS

This is a descriptive survey of mothers in order to clarify the factors hindering the good progress of MA during the covid-19 pandemic and to assess their knowledge and practices in terms of MA in the event of infection. by the corona virus.

The target population was represented by 253 "mother-child" couples who gave birth at the Mohamed VI University Hospital in Marrakech during the period from April 1 to June 30, 2020.

The data were collected through a questionnaire made up of 20 questions, and comprising multiple choice questions and open-ended questions.

The subject topics of the questionnaire concern:
- The socioeconomic and biodemographic profile of mothers: age, level of education, occupation, socioeconomic level, and parity.
- The characteristics of pregnancy and childbirth: monitoring of pregnancy and mode of delivery.
- *Mothers' knowledge of coronavirus disease 2019 (COVID-19), its mode of transmission, recommendations on what to do with a woman who has recently given birth with SARS.-CoV-2 and its newborn with regard to breast-feeding and its mode of administration or possible contraindication.
- Awareness of mothers about AM in new mothers with SARS.-CoV-2, during pregnancy and after childbirth.

RESULTS

I. Socio-economic and biodemographic profile of the mothers interviewed

The ages of the mothers vary between 16 and 40 years with an average of [26.98 years]. 38.5% of mothers primiparous. Women housewives are in the majority (82%). 100 women are of low socio-economic status. Illiterate women are the majority (47.8%), mothers with primary level 29.6%, those with secondary level 20.5% and 2.5% for higher level (Fig.1). 45% of pregnancies were followed, including 73 women followed the pregnancy in private practices, 41 in health centers and one woman in the hospital.

II. Knowledge and practices of mothers in breastfeeding

100 women or 39.5% have breastfed children, 91 are first-time mothers and 9 women have never breastfed. 27.5% of babies were breastfed for 4 months, 38% for 4 to 6 months and 48% of mothers breastfed for more than 6 months. The total duration of the MA varies between 1 to 36 months with an average of 15.79 months. 175 women or 62.5% are not made aware of the importance of breastfeeding (Fig 2).

Awareness was carried out at health centers for 60% of women, at at the Mohamed VI University Hospital in Marrakech for 20%, in private for 17.3%
and at the levels of other hospitals for 2.7% of mothers. Only 9 husbands participated in the awareness training.

Fig-2: Awareness of mothers regarding breastfeeding

III. Knowledge and practices of mothers regarding breastfeeding in cases of coronavirus (COVID-19)

76 women or 30% know that a mother affected by the COVID-19 virus can breastfeed (fig3).

Fig-3: A mother suspected or confirmed to have the Covid-19 virus can breastfeed

70 women or 27.5% know that the virus is not transmitted through breast milk (fig 4)

Fig-4: Transmission of viruses through breast milk
22% Know the precautions to take when breastfeeding if mothers with COVID-19 to avoid passing it on to the baby (fig 5).

![Precautions to take when breastfeeding if mothers with COVID-19](image)

**Fig-5: Precautions to take when breastfeeding if mothers with COVID-19**

63 women or 25% know that the mother affected with the COVID-19 virus can touch their newborn baby and take him in her arms (fig-6).

![Can mothers with covid-19 hug their newborns?](image)

**Fig-6: Can mothers with covid-19 hug their newborns**

70% of women or 177 respect the quarantine rules (fig 7).

![Compliance with quarantine rules](image)

**Fig-7: Compliance with quarantine rules**
And 90% of women have disinfection products in their homes. Only 64 women, or 25%, are aware of the importance of AM, and of the Special precautions to be taken by mothers suspected or proven positive for COVID-19. The sensitization was carried out at the level of the mother child hospital chu mohammed VI for 60% of the women, at the level of health centers 15%, in private for 10% and by the media for 5% of the mothers. Share in 10% (table 1).

<table>
<thead>
<tr>
<th>Place of awareness raising for women concerning breastfeeding in the event of a suspected or confirmed mother suffering from the Covid-19 virus</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mohammed VI University Hospital Center</td>
<td>152</td>
<td>60</td>
</tr>
<tr>
<td>Health centers</td>
<td>51</td>
<td>20</td>
</tr>
<tr>
<td>private sector</td>
<td>38</td>
<td>15</td>
</tr>
<tr>
<td>Media</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>253</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Sensitization was oral in 90% of mothers and audiovisual in 10% (fig 8).

Of the mothers interviewed, 7.9% have decided to breastfeed their babies even if they are infected with the Coronavirus.

<table>
<thead>
<tr>
<th>Breastfeeding decision</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>20</td>
<td>7.9</td>
</tr>
<tr>
<td>No</td>
<td>233</td>
<td>92.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>253</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

DISCUSSION

Coronavirus disease-2019 (COVID-19), declared a pandemic on March 11, 2020, by the World Health Organization (WHO), started as an outbreak of pneumonia in Wuhan, China, in December 2019. Later, it was discovered that the disease was caused by a single-stranded RNA virus, which was named SARS-CoV-2 (severe acute respiratory syndrome coronavirus-2). The virus is known to be transmitted by droplets of an infected individual and leads to a variety of symptoms affecting respiratory and other systems in the body [6]. COVID-19 has been spreading globally very rapidly. As of October 25, 2020, over 42 million confirmed cases were reported worldwide [7].

Pregnant women and newborns can be considered a high-risk population during the COVID-19 pandemic because their vulnerability to acquire any infection is higher in general due to lowered immunity during this period. Even though initial data from smaller studies have suggested that the pregnancy does not increase the risk of getting COVID-19 infection and the severity of illness is not different from the general population, caution still must be exercised by both the pregnant women and their clinicians as there is a lot that we are not aware of this disease [8].

There is very limited data on the presence of Covid-19 in breastmilk and the possibility of mother-infant transmission. In a small study of six mothers with Covid-19, breastmilk samples were collected and tested after the first lactation [9]. Samples were tested for Covid-19 using qRT-PCR with results demonstrating that all tests were negative. A slightly larger study of 19 mothers did not find SARS-CoV-2 in breastmilk [10]. A recent report found a strong sIgA antibody SARS-CoV-2 immune response in breastmilk from 12 out of 15 mothers (80%) previously infected with Covid-19 [11].

In the present study on the assessment of knowledge about breastfeeding in confinement, mothers regarding breastfeeding practices during SARS-CoV-2 attack, it was observed that only about 27.30% of mothers were aware that the virus is not transmitted
through breast milk. Due to poor coverage of breastfeeding advice during covid-19 infection given during maternal antenatal visits. In addition to its nutritional and immune benefits for newborns and infants, breastfeeding maintains and develops the mother—child relationship established during pregnancy [12].

During the earlier months of COVID-19, there appeared to be a lack of consensus regarding breastfeeding for COVID-19 positive mothers. In February 2020, Chinese experts recommended against breastfeeding for mothers with suspected or confirmed COVID-19. They advised initiating breastfeeding only if the mother and her breast milk samples tested negative [13].

Based on the currently available evidence, WHO has recommended that the mothers with confirmed or suspected COVID-19 should continue to breastfeed since the benefits of breastfeeding to both the mother and newborns significantly outweigh the risk of transmission of COVID-19 to the newborns [14]. These guidelines echo with the ones from the Centers for Disease Control and Prevention (CDC) and the Royal College of Obstetricians and Gynecologists. The mother should be willing to follow all necessary preventive measures to avoid the spread of infection to the newborn since infection can still pass from the mother to the baby through droplets. When the mothers must stay separated from the newborn due to their clinical condition or those mothers who are not comfortable following the preventive measures or who do not feel safe to breastfeed their newborns directly, the option of expressed breastmilk should be recommended [15]. There is no clear evidence currently to support measures such as cleaning the breast before breastfeeding or disinfecting bottles or bags (accessories for collecting milk) before use as ways to decrease transmission of the virus [16].

In practice, the National Academy of Medicine recommends

- To always favor breastfeeding to ensure immune protection for the newborn and the infant as well as a quality mother—child relationship;
- To encourage any mother suffering from an asymptomatic or pauci-symptomatic form of Covid-19 to breastfeed, observing all the necessary precautions (careful hand washing and wearing of surgical mask during feeding);
- Not to interrupt breast-feeding if the mother is taking paracetamol [17].

Promoting breastfeeding in lockdown is one of the most effective ways to improve the health of children. It also has beneficial effects for mothers, families, the environment, and society as a whole. Professional associations should be encouraged to publish recommendations and implementation guidelines based on national policies. Short-term plans should be put in place by relevant ministries and health authorities, who should also appoint suitably qualified coordinators, and intersectoral committees. Adequate human and financial resources are essential for the implementation of projects.

- Adequate information, education and communication are essential

Decisive importance in recreating a breastfeeding culture in our country where feeding with industrial milk has become the social norm. Future and young parents have the right to full, correct and optimal information about infant feeding, especially in this critical period. There is a need to offer counseling through one-on-one interviews with appropriately trained health professionals, lay counselors, and mother-to-mother support groups.

Our work reveals a great lack of knowledge of mothers about breastfeeding in cases of covid-19, who are, for the most part, illiterate or of low level of education. The promotion of AOS must be part of a general public health policy at the level of our country. The main action is informing women about the benefits and the superiority of MA, as well as psychological preparation of the mother which should ideally take place before and during pregnancy, and also concerns the spouse. The scientific arguments in favor of the superiority of breast milk are hardly discussed. They are important in promoting AM and need to be explained on an individual level to convince people of the value of breastfeeding. This preparation should continue after childbirth especially for inexperienced mothers in order to help them overcome the difficulties associated with breastfeeding.

CONCLUSION

After this limited work, we can conclude that our knowledge of the transmission of the SARS-CoV-2 virus through breast milk is quite insufficient. At the same time, we cannot ignore the evidence that proves the benefits of breastfeeding to both the mother and the newborn. Even though, based on the limited set of literature, it can be inferred that if the health of both the mother and her newborn permits, continuation of breastfeeding should be advocated to the mothers with COVID-19; healthcare providers should still cautiously discuss the risks of vertical transmission with the patients to help them make a well-informed decision. Providers should also educate themothers about the disease process as well as the precautions required to prevent contact transmission of COVID-19 to the newborns. When direct breastfeeding is not feasible due to health concerns, giving extracted breast milk to the newborns can be considered. An in-depth analysis of virus pathophysiology and its transmission through breast milk will be possible once more extensive studies are conducted to examine this correlation.
Abbreviations
COVID-19: Coronavirus disease-2019
SARS-CoV-2: Severe acute respiratory syndrome coronavirus-2

REFERENCES