

CLINICAL ARTICLE

Obstetrics

Impact of COVID-19 on psychosocial functioning of peripartum women: A qualitative study comprising focus group discussions and in-depth interviews

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Abstract

Objective: Peripartum is a period of profound hormonal changes in the body and COVID-19 seems to have an additional impact on these women's psychosocial functioning. This calls for a need to address the psychosocial and behavioural impact of COVID-19 on peripartum women's lives.

Methods: Three focus group discussions and ten in-depth interviews were conducted. A format to guide discussions and interviews was made to bring uniformity across groups and participants. Participants were recruited through purposive sampling. In verbatim transcription was done, followed by thematic analysis to extract key conceptual themes.

Results: Fourteen pregnant and eleven postpartum women were included. The mean age was 28.5 years. Two major domains were identified: 1) the psychological domain including the categories of thoughts, emotions, and behaviour, and 2) the social domain comprising categories of relationships with family members and friends, perceived loss of social support, doctor-patient relationship, and social determinants of health.

Conclusion: The pandemic has indeed affected the psychosocial functioning of peripartum women. The study results might prove to be helpful for clinicians and mental health specialists who can suggest and develop different coping strategies for peripartum women during this pandemic.

KEYWORDS

behaviour, COVID-19, peripartum, postpartum, pregnancy, psycho-social functioning, qualitative research

1 | INTRODUCTION

COVID-19 has had a significant effect on all sections of society, including pregnant and peripartum women. Studies suggest a significant burden of COVID-19 among pregnant women attending the hospital for any reason.¹ Hormonal changes and several other

factors predispose these women to behavioural changes and alteration in psychological functioning and social well-being. A recent survey of pregnant women conducted in Italy found severe psychological impact of COVID-19 on more than half of participants.²

Qualitative studies like focused group discussions and in-depth interviews are essential to understand a homogeneous population

group's thoughts, opinions, beliefs, and attitudes regarding any particular topic.³ Researchers worldwide have been using these modalities to gather data/information regarding dynamic opinions on various health topics.³ Psychosocial response to a particular condition depends upon the social and cultural makeup of society, which keeps changing over time.⁴ Thus it is essential to conduct such studies in different population groups over different time frames.

There is a dearth of conclusive knowledge and comprehension about Indian peripartum women's experience during this pandemic. This calls for a need to address the psychosocial and behavioural impact of COVID-19 on peripartum women's lives. Thus, this study aims to conduct qualitative research comprising focus group discussions and in-depth interviews to capture peripartum women's lived experiences during the COVID-19 pandemic.

2 | METHODS AND MATERIALS

We conducted qualitative content analysis with a conventional approach to obtain themes and subthemes. Pregnant women from the 30th week of gestation till one month postpartum who could speak either English or Hindi language were selected through purposive sampling with the principle of maximum variation. In order to provide diverse experiences, participants were selected with varying work-experiences, age, parity, employment status, type of family (joint/nuclear), socio-economic status, any known medical comorbidities. Women with confirmed COVID-19 infection, previously known psychotic illnesses, or a history of significant psychiatric comorbidity warranting hospitalization were excluded. The study was conducted in September 2020 after approval by the Institute Ethics Committee (IEC/549/6/2020).

Participants were informed about the purpose of the study and invited to attend the group discussion. Written informed consent was taken. Data collection was done by the primary investigator through three focus group discussions constituting five participants in each, one via an online platform while the other two were conducted in

the antenatal ward. Each session lasted for about 45–50 minutes. Apart from this, ten in-depth interviews were also carried out, each session lasting for about 20–25 minutes.

Both focus group discussions and in-depth interviews were initiated by an open-ended question - "What important changes have you experienced in your lives due to COVID-19?". In adjunct to this, a semi-structured guide comprising open-ended questions (Table 1) related to daily lifestyle, preventive practices, and concerns of peripartum women was prepared and used whenever needed to direct and keep the discussion focused. At the end of the discussion, participants were encouraged to include additional information, if any.

Each discussion was transcribed verbatim immediately after the interview and read through several times to understand participants' perspectives. Anonymity of the information collected and confidentiality of the recorded interviews was ensured by not mentioning their names in the transcribed verbatims. Accuracy of the transcribed text was ensured by sharing it with participants, and their feedback was recorded. Data were then analyzed using a qualitative content process to identify the codes using the inductive approach, which were then condensed into subcategories and categorized by the process of induction. Finally, the theme was derived through data analysis. External supervisors with experience in qualitative research were approached for conformability of findings and coding agreement.

3 | RESULTS

3.1 | Socio-demographic characteristics

Of the 25 peripartum women who participated in our study, 14 were currently pregnant and 11 were postpartum. The average age of the participants was 28.5 ± 4.6 (mean \pm SD) years. Occupations were as follows: homemakers (n = 10), healthcare professionals (n = 8), miscellaneous (n = 7): teachers (3), engineers (2), banker (1), lawyer (1). The characteristics of the participants are shown in Table 2.

TABLE 1 Semi-structured guide of open-ended questions:

First question	What important changes have you experienced in your lives due to COVID 19?
Guiding questions	How has your social life (meeting friends, family members, attending social gatherings, religious ceremonies, etc.) got affected due to COVID-19?
	Describe your relationship you share with your family members staying with you during COVID-19. (Relationship with a spouse, children, and other family members)
	What precautions are you taking to prevent yourself from getting infected by COVID-19?
	Highlight any changes that you have experienced in your lifestyle related to diet, physical activity, and sleep.
	Put some light on the role and usage of social media.
	What has been your experience regarding the availability of healthcare services?
	What difficulties are you facing due to COVID-19?
	How do you spend your day these days?
	How has your employment got affected due to COVID-19? (Job, business, working hours, workload)
	What are your concerns about your own health?
What are your concerns for your baby?	

3.2 | Impact of COVID-19

The transcribed verbatims has been shown in Table 3. Two major themes were derived as shown in Table 4: (1) the psychological domain including the categories of thoughts, emotions, and behaviour and (2) the social domain comprising categories of relationships with family members and friends, perceived loss of social support, doctor-patient relationship, and social determinants of health (education,

TABLE 2 Characteristics of participants (n = 25):

Characteristics of Participants	Frequency (n) (%)
Age (years)	
18–25	7 (28.00%)
26–34	12 (48.00%)
≥35	6 (24.00%)
Parity	
Primigravida	15 (60.00%)
Multigravida	10 (40.00%)
Type of conception	
Spontaneous	20 (80.00%)
IVF	5 (20.00%)
Pregnant women	14 (56.00%)
30–33 weeks	8 (57.14%)
34–37 weeks	4 (28.57%)
>37 weeks	2 (14.28%)
Postpartum women	11.00 (44%)
Mode of delivery	
Normal vaginal delivery	7 (63.63%)
LSCS	4 (36.36%)
Instrumental	0 (0.00%)
Type of family	
Nuclear	19 (76.00%)
Joint	6 (24.00%)
Educational level	
Up to 10th	3 (12.00%)
Intermediate	15 (60.00%)
University degree	7 (28.00%)
Occupation	
Housewife	10 (40.00%)
Healthcare worker	8 (32.00%)
Others	7 (28.00%)
Comorbidities	
Uncomplicated	8 (32.00%)
Fetal growth restriction	7 (25.00%)
Diabetes Mellitus	5 (20.00%)
Multiple pregnancy	3 (12.00%)
Hypertension	2 (8.00%)
Intrahepatic cholestasis of pregnancy	2 (8.00%)
Heart diseases	1 (4.00%)

employment, financial concerns and access and quality of necessary resources).

3.3 | Fear and anxiety

When asked about the various effects of the coronavirus pandemic on their lives, most participants reported a sense of fear and/or anxiety. They felt puzzled about what exactly they were supposed to do in the changing world. The fear of getting infected with the coronavirus and unborn baby were shared by all participants.

3.4 | Household confinement and lifestyle modification

Various codes such as social boycott, inability to meet friends, inability to attend social gatherings, religious ceremonies, and inability to visit doctors/people depicted the household confinement aspect expressed by the participants. However, three participants reported enjoying this home confinement with their family members. Moreover, many participants also reported that this pandemic had upended their daily routine such as not being able to maintain a healthy diet and regular physical activity.

3.5 | Preventive practices

Participants claimed that they were following preventive measures during the COVID-19 pandemic, which included frequent hand washing/ sanitizing, maintenance of social distancing, usage of masks, etc. Some participants also reported that they always shopped in bulk for grocery items every time they stepped out, kept them outside the home for at least 48 hours, and then sanitized thoroughly before finally using them. Moreover, they discontinued any household help.

3.6 | Coping strategies

On being questioned about how they were trying to overcome their COVID-19-associated agitation and fear, the participants reported that they were spending time with their families, watching television, binge-watching their favourite shows, indulging in their hobbies, staying active on various social media programs, etc.

4 | DISCUSSION

There is ample literature suggesting that multiple factors like hormonal changes of pregnancy, presence of comorbidities and the pressure of fulfilling the expected role for family members can affect the emotional equilibrium of peripartum women. Amidst all uncertainties and dilemmas due to COVID-19 exacerbated by

TABLE 3 Identified categories regarding psychosocial functioning of peripartum women during COVID-19 and relevant passages from the documentation of the focus group discussions and in-depth interviews.

Categories and subcategories	Relevant passages (verbatim)
Category 1: Psychological effects	
Subcategory 1.1: Fear of getting infection	<ul style="list-style-type: none"> (26y, pregnant female, 36 weeks of gestation): "I was always worried about getting the infection from other patients in the hospital." (31y, homemaker, postpartum day 15): "I was so scared... I could not resist washing hands several times a day." (28y, banker, postpartum day 20): "I asked my house help to stop coming home due to the fear of coronavirus."
Subcategory 1.2: Fear about new-born baby getting infected	<ul style="list-style-type: none"> (32y, teacher, postpartum day 8): "After discharge from the hospital, I keep on checking the temperature of my baby and myself multiple times a day."
Subcategory 1.3: Fear and Anxiety due to inadequate perinatal services	<ul style="list-style-type: none"> (39y, housewife): "...because of the lockdown; I could not visit doctors for any physical check-up. I resorted to only teleconsultations... I was extremely worried whether my pregnancy was going fine or not." (34y, pregnant woman, 37 weeks of gestation): "...because of COVID-19, I was compelled to change my place of delivery." (26y, pregnant female, 36 weeks of gestation): "I have Rh problem. I was advised frequent monitoring by ultrasound. However, due to lockdown, I had to face great difficulty in coming to the hospital for it."
Category 2: Social effects	
Subcategory 2.1: Anxiety due to financial issues	<ul style="list-style-type: none"> (25y, tutor, 35 weeks of gestation): "I used to provide home tuitions for school children. I had to stop teaching my students, and this affected my financial status badly."
Subcategory 2.2: Anxiety due to changed lifestyle (diet, exercise, and nutrition)	<ul style="list-style-type: none"> (30y, pregnant doctor): "Unlike my last pregnancy, I am deliberately avoiding non-vegetarian food. I also avoid taking fruit juice from outside." (26y, female): "Due to fear of infection, we stock up all groceries, milk and other dairy products for one week and avoid going to market daily. Thus, I am not able to take a good diet." (36y, G2P1L0): "I used to go for morning walk and yoga sessions in our community park daily. Now I have to do physical activity at home. I am not at all satisfied with my current level of physical activity and worried that it is not good for my baby".
Subcategory 2.3: Lack of support	<ul style="list-style-type: none"> (34y, pregnant woman, 37 weeks of gestation): "...My parents couldn't come to me for support during and after delivery."
Subcategory 2.4: Less/decrease interaction and involvement	<ul style="list-style-type: none"> (29y, health care worker): "I was forced by my family members to take maternity leave at just 24 weeks of pregnancy... I miss my workplace, the support of my colleagues and feel sulky throughout the day. This confinement due to COVID-19 is most irritating to me." (28y, primigravida): "I feel like I am socially boycotted, I cannot meet my friends, cannot go to my parents' house or call them here, and cannot even meet my neighbours. I feel bored throughout the day."
Category 3: Coping Strategies	
Subcategory 3.1: Self-motivation	<ul style="list-style-type: none"> (34y, pregnant woman): "I stay active on WhatsApp, where I have family groups and friend groups. I watch TV, my favorite old series like Ramayana and Mahabharata....I have also joined the 'Happiness program' where I learn meditation".
Subcategory 3.2: Engage in pleasurable activities and family time	<ul style="list-style-type: none"> (24y, pregnant woman): "I am enjoying my hobbies like painting and reading many old books that I have". (27y, pregnant woman): "...I have a three-year-old son. I spend my time with him, teach him, play indoor games with him....". (25y, Primigravida, 28 weeks): "because of COVID-19 closures, my husband is at home, and I enjoy his company and support. He cooks my favourite dishes. Never in my married life, have I had such beautiful days".

altered prenatal care modules and limitations of teletherapy, isolation, restricted social activities and infomedia, the pandemic is bound to have a great psychological impact on peripartum women. This psychological impact can have teratogenic effects

on the fetal development and also increase the risk of adverse neonatal outcomes. Hence the implications of COVID-19 on the psychosocial functioning of peripartum women cannot be ignored.⁵⁻⁷

TABLE 4 Effect of COVID-19 on peripartum women.

	Subcategory	Thought	Emotion	Behavior
Category 1 Psychological effects	Fear of getting infection	- Increased thought related to contamination	Fear	- Increased hand washing
		- Most dangerous place is hospital	Worry	- Avoid visiting the hospital for prenatal check-ups
	Fear about new-born baby getting infected	- Anyone can be potentially infectious	Guilt	- Resort to early maternity leave
		- Anything from outside home is contaminated	Frustration	- Avoid public transport and people
Category 2 Social effects	Anxiety due to financial issues	- All might not be stringently following preventive measures	Fear	- Avoid going to park for walking/exercise
		- Misinterpretation of minor common ailments as infection	Suspicion	- Excessive washing or sanitizing
	Anxiety due to changed lifestyle (diet, exercise, and nutrition)	- Increased thoughts related to COVID-19 negative effect on pregnancy and baby	Irritability	- Avoid social gatherings
		- Minimal prenatal visits can be detrimental for pregnancy	Sad	- Avoid services of domestic help
Category 3 Coping Strategies	Fear of social stigma if infected	- All will socially boycott me. Nobody will be spared	Depressed	- Stopped reading newspaper
		- Support from others during labor pain	Fear	- Stopped services of washerman/driver
	Lack of support	- Support after delivery to take care of a baby	Sad distressed	- Not allowing any help for baby care
		- Any social gathering can be harmful	Frustration	- Repetitive behavior in terms of checking the temperature of both baby and self
Category 2 Social effects	Anxiety due to financial issues	- Thought related to a financial source	Sad	- Resort to Google for information
		- Lifestyle changes are required or not	Depressed	
	Lack of support	- Support from others during labor pain	Fear	- Taking more precautions
		- Support after delivery to take care of a baby	Sad distressed	- Avoid watching the news and reading messages related to COVID-19
Category 3 Coping Strategies	Less/decrease interaction and involvement	- Decrease interest in activities	Frustration	- Avoid any discussion about COVID-19
		- Increased negative thoughts	Loneliness	- Information with family members
	Lack of motivation and interest	- God's way to punish mankind	Helplessness	- Stop working or searching for online jobs.
		- Decrease interest in activities	Uneasiness	- Cut down physical exercises
Category 3 Coping Strategies	Self-motivation	- Decrease interest in activities	Confusion	- Taking more precautions while choosing foods and nutrition
		- Increased negative thoughts	Frustration	- Avoid a non-vegetarian diet
	Engage in pleasurable activities and family time	- God's way to punish mankind	Loneliness	- Start to taking responsibilities for baby care and other household chores
		- Decrease interest in activities	Boredom	- Showing irritability towards family members
Category 3 Coping Strategies	Engage in pleasurable activities and family time	- Decrease interest in activities	Hopelessness	- Keep themselves at home
		- Increased negative thoughts	Guilt	- Keep restriction on social life (no celebration of festivals, going to malls or crowded markets)
	Engage in pleasurable activities and family time	- God's way to punish mankind	Fear	- Poor self-care
		- Decrease interest in activities	Sadness	- Decline in physical activity
Category 3 Coping Strategies	Engage in pleasurable activities and family time	- Increased negative thoughts	Guilt	- Disturbed sleep-wake cycle
		- God's way to punish mankind	Guilt	- Increased praying
	Engage in pleasurable activities and family time	- Decrease interest in activities	Helplessness	- Spending quality time with family
		- Increased negative thoughts	Loneliness	- Increased indulgence in hobbies

We found multiple factors that had affected the general well being of the participating peripartum women (Table 4). A sense of fear and anxiety was common among peripartum women. They were afraid of the unprecedented effects of COVID-19 on their health or their unborn/newborn baby if they got infected. The sense of fear and anxiety has also been reported in some other studies.^{2,8} A study from Turkey reported that 80% of 172 near term women were bothered about the pandemic, 52% felt that they were at increased risk due to their pregnancy, 35% were having persistent thoughts that they were already infected, while 42% were concerned that their baby might get infected.⁸

Our study also revealed that the restrictions during COVID-19 had upended the social life of peripartum women. Peripartum being a period of profound emotional turmoil, demands not only emotional and informational support but also tangible support from husband and other family members. Mostly these women prefer to move to their own parents' home as they feel comfortable there. Fear of infection deters them from traveling or even meeting their friends/relatives. Social rituals like traditional baby showers and rituals on the sixth day of a baby's life are meant not only for celebration but also to solidify the family's connection to community, heritage, and culture. The absence of any such social gatherings due to pandemic has badly affected the peripartum women's mental wellbeing. A study done in Italy also reported that home confinement with social isolation had considerable adverse effects on pregnant women's mental health.⁹

Home confinement due to COVID-19 has also affected the lifestyle of the peripartum women. Participants reported a significant decline in their physical activity level due to fear of infection outdoors, inadequate indoor space, and reduced motivation due to lack of social support. Like our study, a cross-sectional survey done in Spain also reported decreased physical activity and exercise by pregnant women.¹⁰ Moreover, women reported disturbed daily sleep-wake cycles. They were going to bed later, woke up late, took mid-day naps, and slept more than usual. Furthermore, they also felt that the pandemic had affected their nutrition. Lockdown restrictions prevented their family members from arranging fresh fruits and vegetables and milk and milk products daily. Most of them also avoided a non-vegetarian diet due to fear of contracting the corona infection by its consumption. However, none of them indulged in unhealthy eating patterns and tried to include immunity-boosting foods in their diet. Contrary to our study, Wang et al. reported that stress during the pandemic can increase the risk of developing dysfunctional eating behaviours and overeating due to boredom.¹¹

Participants also stated that they had been trying to overcome the stress and anxiety associated with COVID-19. They had spent time with other family members, engaging in social media, attending some online wellness programs, or indulging in hobbies like painting and cooking. Due to the fear of the unknown, they have increased praying for their wellness and their baby along with other family members. They reported that they were making recurrent attempts to self-motivate themselves during the pandemic. Moreover, they had long chats with their friends and family members.

Many surveys assessing the psychosocial impact of COVID-19 on peripartum women have been conducted.^{10,12,13} Our study is one of the first attempts worldwide and in India to assess COVID-19 impact on peripartum women's psychosocial functioning through focus group discussions and in-depth interviews to not only focus on 'what' but also on 'how' and 'why'. However, this hospital study has a few limitations. Participants were recruited via purposive sampling through contacts and networks of investigators. Moreover, the sample may be unrepresentative as it only included women visiting a tertiary care centre and were mostly educated.

5 | CONCLUSION

The COVID-19 pandemic has affected the psychosocial functioning of peripartum women. The study results can help clinicians and mental health specialists who can suggest and develop different coping strategies for peripartum women based on the lived experience shared in the study. This study will make way for further studies with a larger sample size looking into questionnaire development and community based surveys. It is imperative to do future research to address the magnitude of the problem among this vulnerable population and assess the degree of severity of each psychosocial component.

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CONFLICTS OF INTEREST

The authors have no conflicts of interest.

AUTHOR CONTRIBUTIONS

NB, AK and PR conceived the idea. AK, KAS, RZ and JB planned and conducted focused group discussion and in-depth interviews with chief guidance of NB. AK, AS and NB wrote the manuscript and other authors have given their inputs.

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