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Family Support and Well-Being of Mothers During Covid-19 Pandemic: Review

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Abstract

The COVID-19 global pandemic has impacted the whole of society, requiring rapid implementation of individual-, population-, and system-level public health responses to contain and reduce the spread of infection. Women in the perinatal period have unique and timely needs for directives on health, safety, and risk aversion during periods of isolation and physical distancing for themselves from their child, and other family members. In addition, they are a vulnerable group at increased risk of psychological distress that may be exacerbated in the context of social support deprivation so that Perinatal mothers needs family support and good well- being.

Keywords: Family Support, Well-Being of Mothers, Covid-19

INTRODUCTION

The COVID-19 pandemic in India is a part of the worldwide pandemic of coronavirus disease 2019 caused by SARS-CoV-2. As of 17 August 2021, India has the second-highest number of confirmed cases in the world with 32.2 million reported cases of COVID-19 infection and anxiety affect one in seven women during the perinatal period.

The review of literature had been done here under the following subheadings:

1. Literature related to COVID -19 related mothers.
2. Literature related to family support of mothers during the COVID-19 pandemic.
3. Literature related to well-being mothers during COVID-19 pandemic.

1. LITERATURE RELATED TO COVID-19 MOTHERS

Maryamsadat Jafari et al. (2021) conducted a systematic review and meta-analysis. A total study sample of 128176 non –pregnant patients (228 studies) and 1000 pregnant patients (121 studies).The result showed that the mean confidence interval of age and gestational age of admission in pregnant women was 33 (28-37) years old and 36 (34-37) weeks, respectively. Fever (pregnant: 75.5%; non pregnant: 74% and cough (pregnant: 48.5 %, non- pregnant: 53.5%) are the most common symptoms in both groups followed by myalgia (26.5%) and chill (25%) in pregnant and fatigue (26.5%) in non-pregnant patients. The most common imaging found in pregnant mother is ground glass opacity (57%) and in non-pregnant patient is consolidation (76%) .The most common co morbidity in pregnant patients is diabetes (18%) and in non-pregnant patient patients is hypertension (21%). Case fatality rate of non-pregnant hospitalized patient is 6.4% and mortality due to all cause for pregnant patients is 11.3%.Regarding the complications of pregnancy, PPH (54.5%), caesarean delivery (48%), preterm labour (25%) and preterm birth (21%).The most prevalent neonatal complication NICU admission (43%), fetal distress (30%) and LBW (25%). The rate of vertical transmission is 5.3%, and the rate of positive SARS-CoV-2 test for neonates born mothers with COVID-19 is 8%.[1]

Shah Md. Azimul Ehsan et al. (2021) conducted an empirical study in Bangladesh to analyse the impact of COVID -19 on the mothers. The total study sample was 223 through a semi-structured questionnaire survey. The respondents were selected using the purposive random sampling technique. Approximately 92% respondents agreed to the fact that COVID-19 has had a negative impact .Almost 50% of the expected mothers and new mothers of the sample population strongly agreed that both their pre-natal and postnatal check ups were greatly affected, while 39% were partially affected. Almost 98%, agreed that their level of stress and anxiety have increased since the outbreak of coronavirus.[2]

Ipek Gurol- Urganci et al. (2021) conducted a cohort study in England to determine the maternal and perinatal outcomes of pregnant women with SARS-CoV-2 infection at the time of birth. The study sample of 3527 women. The result showed that fetal death(2.21;95%confidence interval,1.58-3.11;P<.001) and preterm birth (2.17;95% confidence interval, 1.96-2.42;P<.001).The risk of preeclampsia or eclampsia (1.55,95%CI, 1.29-01.85; P<.001), birth by emergency ceasarean delivery (1.63;95% CI,1.51-1.76; P<.001), and prolonged admission after birth (1.57; 95% CI, 1.44-1.72; P<.001). The risk of neonatal adverse outcome(1.45;95% CI, 1.27-1.66; P<.001), need for specialist neonatal care (1.24; 95% CI, 1.02-1.51; P=.03) and prolonged neonatal admission after5 birth (1.61; 95% CI,1.49-1.75;P<.001).[3]

Abdulkarim M. Meraya et.al. (2021) conducted a cross-sectional study in Saudi Arabia to assess /investigate COVID-19 related psychological distress and fears among mothers and pregnant women. The study sample 628 women, 11.8% were pregnant at the time of survey. Most of the pregnant women 89.2% had some degree of concern about their unborn babies getting infected during delivery in the hospital.

Most mothers and pregnant women 94.9 % had some degree of psychological distress.34.7% reported moderate psychological distress, and 39% reported high psychological distress.[4]

Cindy H Liu et al.(2021) conducted a cross- sectional study in U.S. to assess the prenatal distress during the COVID-19 pandemic. The study sample of 701 pregnant women. The result showed that higher levels of distress tolerance were associated with lower level of general prenatal distress (B=- 0.192,p< .001) and COVID-19 specific prenatal distress (B= - 0.089, P<.05).Generalized anxiety, and PTSD were associated with higher levels of general distress (depression B= 0.259, p< 0.001, generalized anxiety; B= 0.114, p <0.05, and PTSD:B= 0.117, p< 0.05).[5]

Daniele Di Masico et al. (2020) conducted a systematic review and meta-analysis to assess the outcome of coronavirus spectrum infections (SARS, MERS, COVID-19) during pregnancy: A study sample was 79 hospitalized women. The result showed that 41 pregnancies (51.9%) affected by COVID-19, 12 (25.2%) by MERS, and 26 (32.9%) by SARS. The most symptoms were fever (82.6%) , cough (57.1%), and dyspnea (27.0%). For all coronavirus infection, the pooled proportion of miscarriage was 64.7, the pooled proportion of preterm birth <37 weeks was 24.3%, premature prelabor rupture of membranes occurred in 20.7%, preeclampsia in 16.2%, and fetal growth restriction in 11.7%, although reported only for women affected by SARS; 84% were delivered by cesarean, the pooled proportion of perinatal death was11.1 %, and 57.2% of newborns were admitted to the NICU. The most common adverse pregnancy outcome was preterm birth <37 weeks, occurring in 41.1% of cases, while the pooled proportion of perinatal death was 7.0%. [6]

Augusto Sola et al. (2020) conducted a descriptive study in America to assess the perinatal COVID-19. A total sample of 86 pregnant women with COVID-19.The result showed that 68% (59) were asymptomatic and 32% of symptomatic women. 89%(24) had mild symptoms and 3.5% (3) had severe respiratory symptoms. The cesarean section rate was 38%, gestational age was < 37 weeks in 6% of cases. RT-PCR was performed on all newborns between 16 and 36 hours of age; 6 (7%) were positive. Breastfeeding was authorized in only 24% of mothers; in 13% milk was expressed and 63% of newborns were fed with formula. In 76% of cases the mother child pair was separated, and in 95% of cases the mother could not be accompanied at delivery or during the postpartum period.[7]

Jose villar, MD et.al. (2020) conducted a cohort study to evaluate the risk associated with COVID-19 in pregnancy on maternal and neonatal outcomes compared with not-infected, concomitant pregnant individuals. The total study sample was 2130 pregnant women. A total 706 pregnant women with COVID-19 diagnosis and 1424 pregnant women without COVID-19 diagnosis Overweight early in pregnancy occurred in 323 women48.6% with COVID-19 diagnosis and 554 women40.2/% without. Women with COVID-19 diagnosis at higher risk for preeclampsia/eclampsia 95%, severe infections 95%, ICU 95%, maternal mortality 95%, preterm birth 95%,severe neonatal morbidity index 95% and severe perinatal morbidity and mortality index 95%. Fever and shortness of breath for any duration was associated with increased risk of severe maternal complications 95% and neonatal complications 95%.

Asymptomatic women with COVID-19 diagnosis remained at higher risk only for maternal morbidity 95%, preeclampsia 95% , Among women tested positive 98.1% by RT-PCR,13% of their neonates tested positive. Caesarean delivery 95% but not breastfeeding 95% was associated with increased risk for neonatal tested positivity.[8]

Nicole Racine et al. (2020) conducted a longitudinal observational study. Depression symptoms were assessed using the 10-item center for Epidemiological 0Studies Depression scale and anxiety symptoms were assessed using the short form of the Spielberger State-Trait Anxiety Inventory. Repeated cross-sectional analyses were done to assess temporal trends and fixed-effects regression models were fitted to assess within-person change over time. Out of the 3387 women included, 2445 women were eligible and were invited to participate in the COVID-19 impact study, of whom 1333 consented to participate, and 1301 were included in the longitudinal analysis. At the COVID-19 impact survey timepoint, a higher proportion of mothers had clinically significant depression (35·21%, 95% CI 32·48-38·04) and anxiety symptoms (31·39%, 28·76-34·15) than at all previous data collection time points. The mean depression score (8·31, 95% CI 7·97-8·65) and anxiety score (11·90, 11·66-12·13) at the COVID-19 pandemic timepoint were higher than previous data collection waves at the 3-year timepoint (mean depression score 5·05, 4·85-5·25; mean anxiety score 9·51, 9·35-9·66), 5-year timepoint (mean depression score 5·43, 5·20-5·66; mean anxiety score 9·49, 9·33-9·65), and 8-year timepoint (mean depression score 5·79, 5·55-6·02; mean anxiety score 10·26, 10·10-10·42). For the within-person comparisons, depression scores were a mean of 2·30 points (95% CI 1·95-2·65) higher and anxiety scores were a mean of 1·04 points (0·65-1·43) higher at the COVID-19 pandemic timepoint, after controlling for time trends. [9]

Jena Derakhshani Hamadani et al. (2020) conducted a randomised controlled trial study on income, food security, and mental health a median of 1 year and 2 years before the COVID-19 pandemic to data collected during the lockdown. The total sample study of 2424 mothers. The result showed that (99•9%, 95% CI 99•6-99•9) of 2417 mothers were aware of, and adhering to, the stay-at-home advice. 2321 (96•0%, 95•2-96•7) of 2417 mothers reported a reduction in paid work for the family. Median monthly family income fell from US$212 at baseline to $59 during lockdown, and the proportion of families earning less than $1•90 per day rose from five (0•2%, 0•0-0•5) of 2422 to 992 (47•3%, 45•2-49•5) of 2096 (p<0•0001 comparing baseline with lockdown period). Before the pandemic, 136 (5•6%, 4•7-6•6) of 2420 and 65 (2•7%, 2•1-3•4) of 2420 families experienced moderate and severe food insecurity, respectively. This increased to 881 (36•5%, 34•5-38•4) of 2417 and 371 (15•3%, 13•9-16•8) of 2417 during the lockdown; the number of families experiencing any level of food insecurity increased by 51•7% (48•1-55•4; p<0•0001). [10]

2. Literature related to family support of mothers during the COVID-19 pandemic.

Yan-Ni Wang et.al (2021) conducted a cross-sectional survey in China to explore the effects of perceived family support on psychological distress in pregnant women during COVID-19 pandemic. A

total of 1015 (45.4%) women reported having at least one psychological distress. The women who reported having inadequate family support were more likely to suffer from multiple psychological distress (<_ 2 psychological distress) than who received adequate family support.41.8% reported depression, 31.1% reported anxiety, 8.2% reported insomnia, 13.3% reported somatization and 8.9 % reported posttraumatic stress disorder. A total of 5.2 % of women with less family support reported having four types of psychological distress and 5.9% of had five types of psychological distress, which have significantly higher than those with some family support (3.2%, 1.3%) or those with strong family support 92.6%, 0.7%).The risk of insomnia, anxiety and PTSD in women with less family support was 3.46 times, 1.97 times and 6.69 times higher than that in women with strong perceived family support.[11]

Judy Zhou et al. (2021) conducted a clinical study in California and New York to assess the changes in social support of perinatal women (pregnant and postnatal mothers) during the COVID-19 pandemic .The study sample Out of 1142 participants (649 pregnant and 493 postpartum mothers with infant under the age of 6 months) participated in the survey. The study showed that most of the sample received social support from family and friends(> 88%), and less than 15% reported receiving support from physical or mental health care providers, religious, or community organizations. Participants that received support from family, friends, religious communities, or health care providers had significantly higher self-reported social support rating during COVID-19.Overall 196 participants (17.2%) reported increased social support, 432participants (37.8%) reported decreased support, and 514 participants (45.0) reported no change.[12]

Andrés Moya et al (2021) conducted a cohort study in to assess the effects of the COVID-19 pandemic on mental health have been understudied among vulnerable populations The total sample of study was1376 caregivers were randomly assigned across four sequential cohorts. The risk increased by 14 percentage points for anxiety (95%), 5 percentage points for depression (0·5-9), and 10 percentage points for parental stress (5-15). The deterioration in mental health was stronger for IDP, participants with lower education or pre-existing mental health conditions, and for those reporting a higher number of stressors, including food insecurity and job loss. Maternal mental health significantly worsened during the early stages of the pandemic. Considering the vulnerability and pre-existing mental health conditions of this population, the estimated effects are substantial.[13]

Margie H. Davenport et al.(2020) conducted a study on women who were pregnant or within the first year after delivery to participate in an online survey. In this study included questionnaires on self-reported levels of depression/depressive symptoms (Edinburgh Postnatal Depression Survey; EPDS), anxiety (State-Trait Anxiety Inventory; STAI-State), and physical activity. Current and pre-pandemic values were assessed for each. The total sample study of 900 women. The result showed that 520 (58%) were pregnant and 380 (42%) were in the first year after delivery. Sixty-four percent of women reported reduced physical activity with the onset of isolation measures, while 15% increased, and 21% had no change to their physical activity. An EPDS score ≥13 (indicative of depression) was self-identified in 15%

of respondents pre-pandemic and in 40.7% currently (mean ± SD; 7.5 ± 4.9 vs. 11.2 ± 6.3, respectively; $p <$ 0.01, moderate effect). Moderate to high anxiety (STAI-state score ≥40) was identified in 29% of women before the pandemic (mean STAI = 34.5 ± 11.4) vs. 72% of women currently mean STAI = 48.1 ± 13.6; $p < 0.01$, large effect). However, women engaging in at least 150 min of moderate intensity physical activity during the pandemic had significantly lower scores for both anxiety and depression than those who did not ($p < 0.01$, large and small effect, respectively). [14]

3. Literature related to well-being of mothers during COVID-19 pandemic.

Yvonne J. Kuipers et al. (2022) conducted a non-concurrent cross- sectional study in Belgium to assess the psychological health of pregnant and postpartum women before and during COVID-19 pandemic. The total study sample was 1145 mothers. The result showed that the postpartum total GAD-2 scores before vs during the pandemic showed significant differences. Positive effect of having an infant during time of COVID-19 F(1,13)=5.06,p.025,d.27).The effect was significantly larger for women with perinatal psychological problems (F(1.12) = 51.44, p< .001,de.82). Emotional support was significantly related to GAD-2 scores of postpartum women during the pandemic (F (1.90)=35.54,p<.001). Postpartum women reported significant higher effects of the pandemic on their behaviour compared to pregnant mother (p.034).[15]

Archana Basu et al. (2021) conducted a cross-sectional study online survey in 64 countries to assess the women's perinatal mental health and well-being during the COVID-19 pandemic. A study sample was 6,894 pregnant and postpartum women. The result showed that substantial proportions of women scored at or above the cut-offs for elevated posttraumatic stress (2,979[43%]), anxiety/depression (2,138 [31%], and loneliness (3,691[53%]).A majority of women (86%) reported being somewhat or very worried about COVID-19. Family being unable to visit after delivery (59%), the baby contracting COVID-19 (59%), lack of support person during delivery (55%), and COVID-19 causing changes to the delivery plan (41%). [16]

Lotte Broberg et al. (2021) conducted a cross-sectional study in Denmark to assess the psychological well-being and worries among pregnant mother in the first trimester during the early phase of the COVID-19 pandemic. A study sample 685 COVID-19 group and women who were pregnant the year before787 historical group. The result showed that WHO-5 score between groups (mean difference) 0.1 (95/% CI-1.5 to1.6) or in the prevalence of women with WHO-5 score < and equal to 50 (prevalence ratio 1.04, 95% CI0.83-1.29). A larger proportion of women in the COVID-19 group reported major worries concerning Relationship0 with husband/ partner compared with historical group and 9.2% in the COVID-19 group worried about the possible negative influence of the COVID-19 restrictions. [17]

Forough Mortazavi et al. (2021) conducted a descriptive cross –sectional study in Iran to assess the Pregnant women's well-being and worry during the COVID-19 pandemic on pregnant mothers. The

total study sample was 484 pregnant mothers. A findings showed that the mean total scores of the WHO-5 Well-Being Index and the percentage of WHO-5 score <50 were 64.9 ± 29.0 and 24.4%.. Women's worry are the increased level of fear of COVID-19 (OR=6.40, p<0.001), a low family income respectively.24.4% had a low level of well-being respectively. Low level of well being in pregnant women are worry about their own health and relationships (OR=1.789, p=0.17), worry about fetus health (OR=1.946, p=0.009), and having at least one infected person with COVID-19 among relatives '(OR=2.135, p=0.036). [18]

Youji Takubo, Naohisa Tsujino et al. (2021) conducted a retrospective study in Japan to assess the psychological impact of the COVID -19 pandemic on one-month postpartum mothers. The total study sample was 3985. The before and during COVID-19 groups contained 2844 and 1095 mothers. The subject were divided into four groups (3 before COVID-19 groups and a during COVID-19 group. EPDS (Edinburgh Postnatal Depression scale) [F=6.43.728,p<0.001, n^2 = 0.329)items related to anxiety were significantly higher and the EPDS items related to anhedonia [F= 249.236, p< 0.001,n^2= 0.160] and depression factors [F = 95.451, p< 0.001, n 2 = were significantly lower during COVID-19Nwere significantly lower in the during COVID-19 groups. The result showed that the mean age of all the participants was 33.4 (SD=5.1) years.[19]

Tom Farrell et al. (2020) conducted a cross-sectional survey in Qatar to assess the impact of the COVID-19 pandemic on the perinatal mental health of women. The total study sample was 288 mothers. The result showed that high prevalence of anxiety and depressive symptomatology (34.4 and 39.2%), based on PHQ-ADS scoring where only 3.1 % of the group had reported pre-existing mental health conditions These rates higher the reported pre-pandemic prevalence.[20]

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