

BRIEF COMMUNICATIONS

Obstetrics

Stay Home, Stay Connected: A virtual model for enhanced prenatal support during the COVID-19 pandemic and beyond

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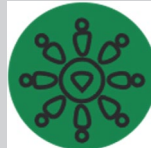
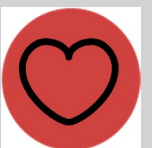
Pregnant patients during the COVID-19 pandemic experienced an increase in clinically significant anxiety and depression compared with pre-pandemic peers,¹ while social distancing simultaneously created barriers to social support and mental health services. To address this gap, we created a virtual prenatal support program, Stay Home, Stay Connected (SHSC). SHSC complements prenatal care by: (1) facilitating patient education opportunities; (2) fostering a supportive community of pregnant patients; and (3) connecting patients with mental health experts for coping strategies and care escalation as needed.

Following an institution-wide recruitment effort, pregnant patients (n = 180) were divided into groups of 8–12 participants of similar gestational age. Groups met monthly to discuss pregnancy topics with maternity care providers. Mental health providers and community members offered program-wide online coping and wellness lectures during other weeks (Table 1). Participants completed an entry survey for the purpose of obtaining baseline depression

and anxiety rates and understanding why patients joined SHSC. One month after program launch, a follow-up patient satisfaction survey was administered to guide quality improvement. The University of Michigan Institutional Review Board deemed ethical approval for this study to be unnecessary. Informed consent from participants was not required.

The initial survey response rate was 90% (162/180): of included patients, 75% (122/162) were white, 93% (151/162) were privately insured, and 53% (86/162) were first-time mothers. The average age of the participants was 32.1 years. Depression and anxiety rates were high (depression: 8/162, [5%]; anxiety: 61/162, [37%]; any mood/anxiety disorder: 42% [69/162]). Thematic coding of free-text responses revealed participants joined SHSC for more robust pregnancy education, a sense of community during social distancing, and mental health support. One month into the program, 61/118 (52%) active participants completed the satisfaction survey. A total of 93.4%

TABLE 1 Stay Home, Stay Connected program structure

				
Week	1	2	3	4
Session type	Small group	Large group	Large group	Large group
Topic	General pregnancy education	Coping skills	Wellness	Self-care
Leaders	Maternity care provider ^a + Student(s) ^b	Psychiatry	Community guests ^c	Social work
Participants	8–12 patients	All patients	All patients	All patients

^aMaternity care provider: General obstetrician/gynecologists, family medicine physicians, certified nurse midwives, maternal fetal medicine physicians.; ^bStudent(s): Medical, midwifery, social work students.; ^cCommunity guests: yoga instructors, doulas, lactation consultants.

(57/61) patients indicated that SHSC addressed anticipatory guidance needs and helped them feel supported by other pregnant patients (60/61, 98.3%). Over 95% (67/68) reported lectures were helpful. In free-text responses, participants reported benefit from anticipatory guidance from providers, reassurance and education regarding COVID-19, and sharing experiences with other pregnant patients.

Initial data from our novel virtual pregnancy support group are promising, and indicate potential to provide critical psychosocial support. Future work is ongoing to more deeply examine the participant experience and mental health outcomes. While SHSC was developed in response to the COVID-19 pandemic, it adds a more widely applicable, innovative dimension to prenatal care by bridging medical and non-medical needs using widely available technology. This creative method of delivering anticipatory guidance and psychosocial support in prenatal care can benefit pregnant patients facing barriers to these services even beyond the COVID-19 pandemic.

CONFLICTS OF INTEREST

The authors have no conflicts of interest.

AUTHOR CONTRIBUTIONS

CRB, MSC, and AP contributed to study design and wrote the manuscript. MSC performed the data analysis. All authors provided critical feedback and helped shape the research, analysis, and final manuscript.

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REFERENCES


- Berthelot N, Lemieux R, Garon-Bissonnette J, Drouin-Maziade C, Martel É, Maziade M. Uptrend in distress and psychiatric symptomatology in pregnant women during the COVID-19 pandemic. *Acta Obstet Gynecol.* 2020;99(7):848-855.

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Obstetrics

Pregnancy and COVID-19: Do not overlook malaria

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The synchronous co-infection of malaria and SARS-CoV-2 in pregnancy has recently been reported.¹ A 38-year-old woman born in Burkina Faso, gravida 4 para 3, lived in Italy for 8 years until November 2019 when she returned to Burkina Faso for a short visit. She was referred to us in March 2020 at 22⁺2 weeks of gestation with a two-day history of fever (38.4°C), dry cough, rhinitis, malaise, myalgia, retrosternal pain, and fatigue. Nasopharyngeal swab SARS-CoV-2 RT-PCR resulted positive, chest X-ray was unremarkable; however, lung ultrasound was consistent with viral pneumonia. Due to tachypnea (36 breaths/minute) and worsening SpO₂, the patient started oxygen therapy. Laboratory

findings were normal, except for increased levels of C-reactive protein. Clinical conditions and imaging improved. On the 20th day she was discharged, and nasopharyngeal swabs on days 21 and 22 were negative. No ethical approval was required for this study and the patient provided written informed consent for inclusion in the study.

At 25⁺6 weeks of gestation she was admitted again with fever (39°C), chills, and myalgia. Chest X-ray and SARS-CoV-2 swab were normal. Blood examination revealed non-*falciparum* trophozoites; other findings were unremarkable, except for once again increased levels of C-reactive protein. Empirical therapy with chloroquine (10 mg/kg/day) was started. Peripheral blood smear, parasite nucleic acid detection, and search for malarial specific antigens revealed *P.*

Marta Papaccio and Roberta Castellani contributed equally to this work.

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