

Potential effects of perinatal psychiatric teleconsultation on provider prescribing confidence

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The American College of Obstetrics and Gynecology's [1] recommends that Health Care Providers (HCPs) initiate treatment and referral for follow-up mental health care when perinatal psychiatric conditions occur. HCPs may be challenged to remain current with the knowledge need to provide safe and effective care given the rapid evolution of perinatal psychiatry [2]. Teleconsultation models that connect subspecialty psychiatrists with HCPs show evidence of being able to effectively transmit complex, yet timely information, to HCPs [3,4]. However, while there is evidence that HCPs utilize provider-based teleconsultation [3,4], less is known about the provider experience of teleconsultation services or how teleconsultation may influence practice given that changing provider behavior is complex [5]. This study's purpose was to evaluate HCP experience of a perinatal teleconsultation service by: 1. Analyzing changes in provider confidence when prescribing common classes of psychiatric medications, and 2. Evaluating perceived changes in practice behaviors.

This was a statewide service that HCPs could contact weekdays during business hours, and within minutes of being triaged by a coordinator, receive teleconsultation from a perinatal psychiatrist, community resource information, or provider education related to perinatal mental health [4]. After Institutional Review Board approval from the Medical College of Wisconsin (#PRO00028736), providers with prescribing privileges who had utilized the teleconsultation service were recruited by online waiver and surveyed using the Research Electronic Data Capture (REDCap). Surveys were administered July 2017–June 2019 at baseline ($n = 156$), month 6 ($n = 51$), 18 ($n = 54$) and 24 ($n = 62$) with a 35% baseline response rate. Provider demographics were collected. Survey questions were author-designed to assess a variety of provider-related indicators based upon best practices reported in the literature including prescribing self-efficacy, the sharing of learned information with colleagues, and practice behaviors important to quality

psychiatric care. Responses to individual questions were voluntary, so sample sizes varied. The percentage who answered all survey questions was: month 6 (37%), 18 (54%), 24 (60%). Response options to questions were either a 4-point range from strongly disagree to strongly agree or anchored 0 (not at all) to 100 (always). Survey responses were grouped by time point, because the sample size of participants who completed all surveys was small ($n = 26$). Descriptive statistics and an analysis of variance (ANOVA) determined change over time for prescribing confidence with a significance level set at $\alpha = 0.05$.

At baseline, providers were on average 40.1 (SD = 10.83) years, 86% female, 87% White, 4.4% Asian, 3.8% Black, and 3.5% Latinx. Provider type included 46.8% physicians, 23.2% advanced practice nurses, and of all providers, 43.1% had been in practice 5 years or less. Overall, 42.9% practiced in an OB/GYN practice setting, 15.4% in psychiatry, and 12.7% in family medicine. A one-way between-subjects ANOVA compared the effect of teleconsultation on provider prescribing confidence of three major classes of psychiatric medications from baseline to month 24 (Fig. 1). There was a significant effect of teleconsultation on provider confidence at the $p < 0.05$ level for all three classes of medications including antidepressants [$F(3, 298) = 6.52, p < 0.001$], anxiety medications [$F(3, 297) = 7.38, p < 0.001$], and sleep medications [$F(3, 292) = 4.30, p < 0.001$].

Providers reported that teleconsultation increased their knowledge level, confidence, and motivation to care for patients with perinatal mental health conditions (Supplemental Table 1). Similarly, providers reported being more likely to make mental health referrals, prescribe medications to pregnant and lactating patients, and discuss the risks and benefits of discontinuing psychiatric medications. The median number of colleagues that providers shared the knowledge gained from teleconsultation the past 6 months ranged from 3 to 4.5 colleagues.

Our results demonstrate that HCP's use of teleconsultation resulted

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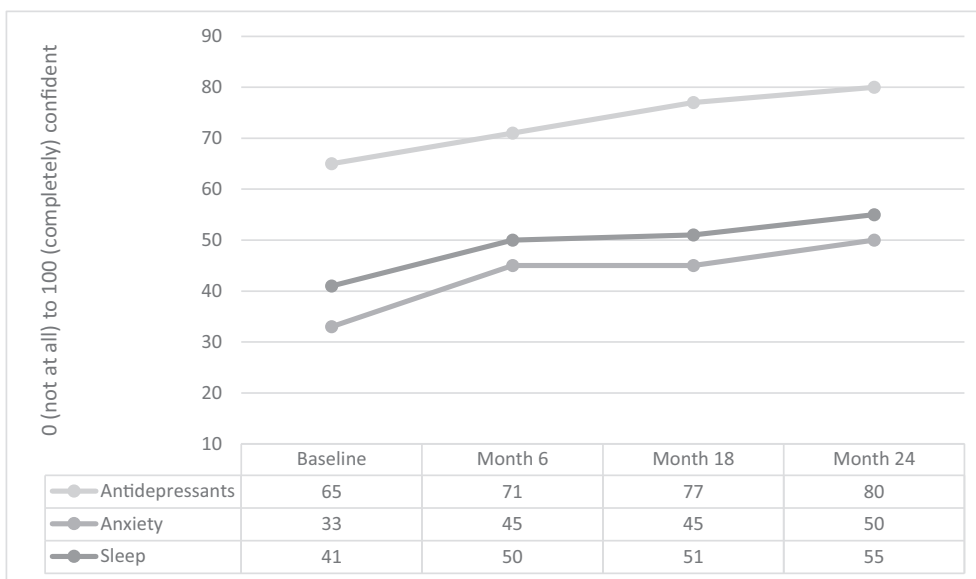


Fig. 1. Changes in provider prescribing confidence in select classes of medications.

in perceived sustained change in several practice behaviors that support the mental health of perinatal women. Over a two-year period, teleconsultation significantly increased the confidence to prescribe antidepressants, anxiety, and sleep medications. Teleconsultation service impact was further reinforced with other subjective measures including telling colleagues about the service, sharing learned knowledge with colleagues, and consistently high ratings of perceived changes in HCP behaviors that support evidence-based practices. Study limitations included the 35% response rate, which may have skewed response towards those providers who found the service useful, small sample sizes to some individual questions and lack of control of variables that may have influenced prescribing confidence.

Implications include the suggestion that teleconsultation services do not underestimate the impact that accessing teleconsultation, even once or twice, may have on provider confidence, behaviors, and consultation with additional colleagues on related topics. Our findings suggest that teleconsultation models that provide just-in-time education to HCPs may be likely to positively influence provider practice. Future research to test this hypothesis with several teleconsultation models should include patients and providers to gain a more comprehensive picture of the comparative effectiveness of teleconsultation’s impact to the Quadruple Aim of improving care, population health, cost, and provider satisfaction given research into such service models are in their infancy [6,7].

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Declaration of Competing Interest

None.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.genhosppsych.2021.03.005>.

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