

Listening to Women and Pregnant and Postpartum People (LTWP): Text Message-Based Screening and Intervention for Perinatal Mood and Anxiety Disorders, Perinatal Substance Use Disorders, and Intimate Partner Violence

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Introduction

Perinatal mood and anxiety disorders (PMADs), perinatal substance use disorders (PSUDs) and intimate partner violence (IPV) are common during pregnancy and the postpartum year.^{1,2,3} PMADs, PSUDs and IPV are associated with significant morbidity and mortality for women and their children.^{4,5} Screening for PMADs, PSUDs, and IPV during pregnancy and the postpartum period using standardized, validated screening is recommended by several professional organizations. For individuals who screen positive for substance use, a brief intervention called Screening, Brief Intervention, and Referral to Treatment (SBIRT) is recommended. There are unfortunately patient, provider, and system-level barriers that exist that prevent widespread adoption of evidence-based screening and referral recommendations for women during this important time in their lives.^{6,7,8} Technology-based solutions have the opportunity to overcome several of these barriers that limit widespread screening for these conditions.⁹ Listening to Women and Pregnant and Postpartum People (LTWP), is a technology-facilitated intervention that has been successful in overcoming traditional barriers to screening for PMADs, PSUDs, and IPV during pregnancy and the postpartum period.

Overview of LTWP*

LTWP is a low resource, scalable, text-message based screening, remote care coordination and home-based telehealth program for pregnant and postpartum people that has demonstrated success in increasing the identification of PMADs, PSUDs, IPV, and social determinants of health and enrollment/participation in referral resources. The program has also demonstrated a significant reduction in racial disparities previously seen with in-person models of care.⁹

LTWP employs the same screening questions for PMADs, PSUDs and IPV and delivers a brief intervention leveraging motivational interviewing techniques and referral to resources and treatment. LTWP differs in the delivery of screening questions in that women answer the screening questions via text-message. In addition, if women answer 'Yes' to the screening question about their mood and anxiety, they also complete the Edinburgh Postnatal Depression Scale via their phone.¹⁰ If they answer 'Yes' to any of the questions related to substance use, they complete the NIDA Modified Assist via their phone.¹¹ Immediately after completing the screenings, all women receive an automated text message with feedback about their screening results, contact information for the care coordinator, and to let them know if a care coordinator will be contacting them. In addition, the automated text message includes other resources for urgent mental health problems and resources for national hotlines for suicide prevention and domestic violence.

LTWP also differs from in-person SBIRT in that any indicated brief intervention is completed via phone by a care coordinator with a master's degree in clinical social work. The care coordinator assesses mental health and/or substance use disorders and IPV. The care coordinator identifies any needed resources (e.g., housing, food etc.) and makes referrals to an appropriate level of care and/or resources. Responses to the text-message screening questions, phone-based assessments, and referrals are recorded in REDCap, an online data capture system and a summary of this information is automatically generated. The care coordinator makes any necessary edits to this automatically generated summary and "copies and pastes" this information into a progress note in the electronic health record. Additionally, attendance at a mental health treatment appointment is captured within the EHR.⁹

**Summary of LTWP adapted from reference⁹*

Lessons Learned & Key Findings

- Trust and supportive communication with a provider is critical to treatment and essential to facilitate recovery from mental health and substance use disorders in pregnancy and the postpartum period.⁵
- Implementation of LTWP can be easily integrated into routine prenatal care practices by clinic nurses along with a care coordinator with a master's degree in clinical social work.⁹
- A study looking at the impact of LTWP found that the intervention resulted in a greater portion of women who screened positive and attended treatment for mental health and substance use disorders, compared to in-person SBIRT.⁹
- Black women were more likely to screen positive for mental health, substance use or IPV through LTWP compared to Black women who were screened in-person.⁹

LTWP Publications

Guille, C., Hall, C., King, C., Suian, A., Brady, K., & Newman, R. (2022). Listening to Women and Pregnant and Postpartum People: Qualitative Research to Inform Opioid Use Disorder Treatment for Pregnant and Postpartum Women. *Drug and Alcohol Dependence Reports*, Volume 3. <https://doi.org/10.1016/j.dadr.2022.100064>

Guille, C., Maldonado, L., Simpson, A.N., Newman, R., King, C., Cortese, B., Quigley, E., Dietrich, N., Kerr, A., Aujla, R., King, K., Ford, D. and Brady, K.T. (2021), A Non-Randomized Trial of In-Person Versus Text/Telephone Screening, Brief Intervention and Referral to Treatment for Pregnant and Postpartum Women. *Psych Res Clin Pract*, 3: 172-183. <https://doi.org/10.1176/appi.prcp.20210027>

¹ Martin SL, Mackie L, Kupper LL, Buescher PA, Moracco KE. Physical abuse of women before, during, and after pregnancy. *J Am Med Assoc* 2001;285(12):1581-1584.

² Luca DL, Margiotta C, Staatz C, Garlow E, Christensen A, Zivin K. Financial Toll of Untreated Perinatal Mood and Anxiety Disorders Among 2017 Births in the United States. *Am J Public Health* 2020;110(6):888-896.

³ U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. National survey on drug use and health 2019 (NSDUH). 2020.

⁴ Ondersma SJ, Chang G, Blake-Lamb T, et al: Accuracy of five self-report screening instruments for substance use in pregnancy. *Addiction* 2019;114(9):1683–1693

⁵ Guille, C., Hall, C., King, C., Suian, A., Brady, K., & Newman, R. (2022). Listening to Women and Pregnant and Postpartum People: Qualitative Research to Inform Opioid Use Disorder Treatment for Pregnant and Postpartum Women. *Drug and Alcohol Dependence Reports*, Volume 3. <https://doi.org/10.1016/j.dadr.2022.100064>

⁶ Frazer Z, McConnell K, Jansson LM. Treatment for substance use disorders in pregnant women: motivators and barriers. *Drug Alcohol Depend* 2019;205:107652

⁷ Byatt N, Biebel K, Lundquist RS, et al: Patient, provider, and system-level barriers and facilitators to addressing perinatal depression. *J Reprod Infant Psychol* 2012;30(5):436–449

⁸ Byatt N, Masters GA, Bergman AL, et al: Screening for mental health and substance use disorders in obstetric settings. *Curr Psychiatry Rep* 2020;22(11):62

⁹ Guille, C., Maldonado, L., Simpson, A.N., Newman, R., King, C., Cortese, B., Quigley, E., Dietrich, N., Kerr, A., Aujla, R., King, K., Ford, D. and Brady, K.T. (2021), A Non-Randomized Trial of In-Person Versus Text/Telephone Screening, Brief Intervention and Referral to Treatment for Pregnant and Postpartum Women. *Psych Res Clin Pract*, 3: 172-183. <https://doi.org/10.1176/appi.prcp.20210027>

¹⁰ Cox JL, Chapman G, Murray D, Jones P. Validation of the Edinburgh Postnatal Depression Scale (EPDS) in non-postnatal women. *J Affect Disord* 1996;39(3):185-189.

¹¹ Ondersma SJ, Chang G, Blake-Lamb T, Gilstad-Hayden K, Orav J, Beatty JR, et al. Accuracy of five self-report screening instruments for substance use in pregnancy. *Addiction* 2019;114(9):1683-1693