Text-message based Doula Peer Supported Intervention to Address Postpartum Depression in Women Residing in Rural New England

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INTRODUCTION

- In 2020, nearly 20% of pregnant and postpartum women died young from drug overuses.[1]
- Rural areas of Northern New Hampshire access to maternal health support are limited with geographical distances, elevating risk of overdose 90 days postpartum.
- Training doulas, who are reimbursed with Medicaid, in evidence-based postpartum practices as alternative support for rural communities.
- Doula Connect: a 3 month-text message-based intervention
- **Goal**: Decrease postpartum depression, parenting stress, improve parental self-efficacy, social support, and self-reported health.

Objective and Hypotheses

Aim 1: Conducting randomized control trail to establish the feasibility, acceptability, and potential effectiveness of Doula technological intervention (DoulaConnect, N=15) and Standard OBGYN services (Treatment As Usual/TaU, N=15) among adults aged 18+ with postpartum depression(PPD) and history of substance use over 3 months.

- **1b:** Accessing improvement of DoulaConnect group via Edinburg Postnatal Depression scale, Social Support Questionnaire, Parenting Stress Index, Health Outcome survey

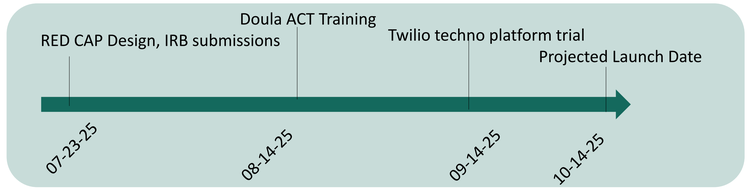
Aim 2: Examine the level of self-efficacy for managing postpartum depression in DoulaConnect comparing to TaU post-intervention at 3 months

Subject Population

- Women with a postpartum depression diagnosis
- Aged > 18 years old
- Screened positive for history of substance use
- Has been in substance use treatment for at least 1 year
- Resident of the north country of New Hampshire
- Capable of speaking and read English

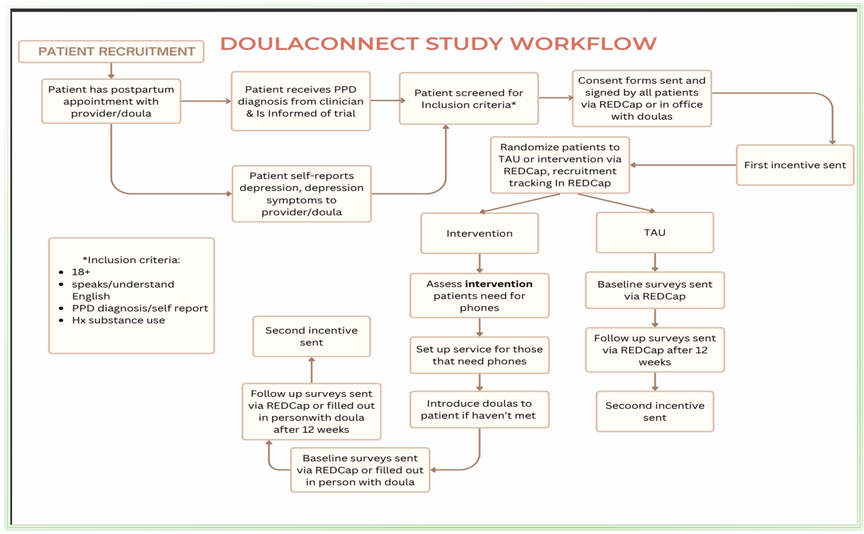
Study Design

Timeframe



Subject Recruitments

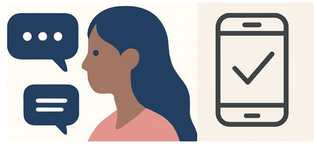
- Subject screen for PPD during routine perinatal appointment
- Clinician from North Country Health Consortium share 1 page information sheet on study and obtain consent for study team to contact participant.
- Research Assistants will complete informed consent procedure via REDCap
- Participants will be compensated $50 in gas cards at baseline and $50 in Amazon gift cards in 3 month.



DISCUSSION

Limitations

- Small Sample size of 30 women assigned to intervention or control, which might result in negligence of small differences in pre/post intervention
- Limited generalizability due to it testing setting of a small rural community
- The study length is only 12 weeks in total → long-term outcomes cannot be assessed
- Improvements or secondary outcomes could be limited to short-term outcomes
- Other undiagnosed mental health conditions prior to interventions could skew the results



Future Directions

- Larger, diversely populated, multisite RCT
- Examination of both rural and urban population for effectiveness
- Longer post-intervention data collection beyond the first 3 months postpartum (e.g. 6-12 months) to evaluate long-term effects
- Expand to individual without substance use history but with other vulnerabilities (e.g. adolescent mothers, women of colors)
- Exploring reimbursement pathways for doula-delivered digital interventions through Medicaid or private insurance.

Summary

This pilot trial will assess the feasibility and acceptability of Doula Connect, a doula-delivered, text-based intervention for postpartum individuals with substance use histories. Although results are not yet available, the study will generate essential insights into the potential for scalable, community-informed strategies to address maternal mental health needs in underserved rural settings and guide future larger-scale evaluations.

1. National Institutes of Health. Overdose deaths increased in pregnant and postpartum women from early 2018 to late 2021. NIH. Published November 22, 2023. Accessed October 31, 2024. https://www.nih.gov/news-events/news-releases/overdose-deaths-increased-pregnant-postpartum-women-early-2018-late-2021