

Evaluation of effectiveness of postpartum preparedness interventions in current obstetric care paradigm among patients with significant risk factors and socioeconomic vulnerabilities

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BACKGROUND

For birth parents, the postpartum period is one of marked vulnerability to stress and mental health concerns, most notably PMADs (1); lingering risk of pregnancy-related morbidity and mortality (2); intense physiological changes (3); and shifting identities (4) and/or strained relationships with social supports (5). In addition, postpartum vulnerabilities only become more pronounced when considering a variety of demographic and socioeconomic risk factors, pre-existing health concerns, and harmful social determinants of health. (6,7,8) A significant proportion of mothers report feeling unprepared for the changes that occur during the postpartum period and feeling disconnected from their health care providers after a period of relatively frequent engagement with clinicians (9,10). In contrast to the focus on women's health in the prenatal period, the postpartum period is marked by unfulfilled or "fragmented" clinical care and lacking continuity of support for postpartum individuals, with up to 40% of mothers not attending a postpartum care visit (9,11,12). Mothers who expressed feeling inadequately prepared for the postpartum period by their provider were more likely to report poor or fair health status and early symptoms of PMADs (3). Postpartum preparedness and care systems, however, have a protective effect against PMADs when mobilized during pregnancy (5).

HYPOTHESIS & OBJECTIVES

Hypotheses

- Current models of antenatal care are suboptimal for adequately preparing birth parents with SDoH risk factors for the transition to the postpartum period, contributing to PMADs and poor peripartum/ perinatal health outcomes
- More adequate postpartum preparedness and planning would yield improved maternal health outcomes and prevent the burden of illness associated with PMADs on birth parents and families and would do so with high impact when targeted to marginalized, underserved, and high-risk patients

Objectives and Aims

To identify:

- Precipitating factors that lead to feelings of unpreparedness among pregnant and postpartum women
- Disparities between mothers' feelings of preparedness before and after giving birth
- Outcomes of existing postpartum preparedness and planning interventions
- Interventional opportunities to increase postpartum preparedness and improve maternal health outcomes

TABLES & FIGURES

In-depth qualitative

assessments of postpartum

preparedness are limited by

small sample sizes

Literature review Funding acquisition and Global Pop application January Survey instrument development • IRB application preparation and submission March -• Research operations training May Preparation for enrollment • Preparation for recruitment of Spanish-speaking patients • Logistical organization (e.g. REDCap build, EPIC access, departmental approvals) Ongoing recruitment Participant interviewing Project hand off Figure 1: Project Progress Diagram 34 patients approached for recruitment 18 participants enrolled Figure 2: Recruitment Progress 12 3T interviews, 1 PP complete 5 3T & 3 PP Innovation of the Gaps in Obstetric Practice & nterviews Current Research Current Research Contributing factors for Connect current obstetric unpreparedness in the care paradigm to outcomes postpartum period are poorly of P4 interventions understood Provide a "pre-post" Research on postpartum assessment of postpartum preparedness is largely preparedness beginning in retrospective pregnancy

Target in-depth qualitative

assessment for cohort of 40

patients, paired with

quantitative survey data

Figure 3: Project Innovation

METHODS

This mixed-method study describes postpartum preparedness and associated roles of social support, healthcare information delivery, planning procedures, and mental/emotional health prior to and after giving birth among obstetrical patients in NYP's Ambulatory Care Network. (ACN). This cross-sectional study utilizes two qualitative interviews, in the third trimester of pregnancy and between two and 12 weeks postpartum, as well as surveys exploring demographic features, health experiences, and self-assessed preparedness for the postpartum period. Participants are recruited during their third trimester and are eligible if they are 18 years old and older, receive prenatal care from the ACN Audubon Clinic, speak English or Spanish, and have an active email address. Conducting this research with patients receiving care in the ACN, which serves a largely economically and educationally disadvantaged patient population, will elucidate areas of improvement in current provision of care and inspire avenues for more equitable healthcare delivery to historically marginalized groups.

Minimal or no receipt of information from healthcare providers regarding personal health and well-being during the postpartum period during third trimester

Moderately high reported confidence of third trimester participants in ability to cope with postpartum period

Substantial social and emotional support from family, partners, and friends and envisioned responsibilities of social supports in postpartum period

DISCUSSION

Although formal data analysis is not yet underway, meaningful themes and trends are emerging from the interviews and surveys. An overwhelming majority of participants so far have expressed feeling socially supported across several data collection domains. Most (88.9%) of respondents to the demographic survey indicate nearby emotional support, and all have responded positively to the statement "I know who will help me after my baby is born" on the third trimester postpartum preparedness survey. Notably, many expectant mothers reported minimal or no receipt of information about the physical and mental/emotional changes to anticipate in the postpartum period from their healthcare providers. The emergence of more frequent "Neutral" responses to the statements regarding expected changes and meeting personal needs during the postpartum period confirms this trend. While it is too early to say definitively, it seems that participants are perhaps restricted in their ability to define expectations for their personal health and well-being due to minimal discussion and information delivery from healthcare providers during prenatal visits.

REFERENCES

- 1. McKee K, Admon LK, Winkelman TNA, Muzik M, Hall S, Dalton VK, et al. Perinatal mood and anxiety disorders, serious mental illness, and delivery-related health outcomes, United States, 2006–2015. BMC
- 2. Eugene Declercq, Laurie Zephyrin. Maternal Mortality in the United States: A Primer [Internet]. The Commonwealth Fund; 2020 Dec. Available from: https://www.commonwealthfund.org/publications/issue-brief
- Howell EA, Mora PA, Chassin MR, Leventhal H. Lack of preparation, physical health after childbirth, and early postpartum depressive symptoms. J Womens Health 2002. 2010 Apr;19(4):703–8.
- Babetin K. The Birth of a Mother: A Psychological Transformation. J Prenat Perinat Psychol Health. 2020 Fall;34(5):410–28.

 Negron R, Martin A, Almog M, Balbierz A, Howell EA. Social Support During the Postpartum Period: Mothers' Views on Needs, Expectations, and Mobilization of Support. Matern Child Health J. 2013
- 5. Howelf EA, Mora P, Leventhal H. Correlates of Early Postpartum Depressive Symptoms. Matern Child Health J. 2006 Mar;10(2):149–57.
 7. Sherman LJ, Ali MM. Diagnosis of Postpartum Depression and Timing and Types of Treatment Received Differ for Women with Private and Medicaid Coverage. Womens Health Issues. 2018 Nov;28(6):524–9.
 8. Redman EK, Hauspurg A, Hubel CA, Roberts JM, Jeyabalan A. Clinical Course, Associated Factors, and Blood Pressure Profile of Delayed-Onset Postpartum Preeclampsia. Obstet Gynecol. 2019
- Martin A, Horowitz C, Balbierz A, Howell EA. Views of Women and Clinicians on Postpartum Preparation and Recovery. Matern Child Health J. 2014 Apr;18(3):707–13.
 Tully KP, Stuebe AM, Verbiest SB. The fourth trimester: a critical transition period with unmet maternal health needs. Am J Obstet Gynecol. 2017 Jul;217(1):37–41.
 American College of Obstetrics and Gynecology. Committee Opinion No. 666: Optimizing Postpartum Care. Obstet Gynecol. 2016 Jun;127(6):e187–92.
 Wilcox A, Levi EE, Garrett JM. Predictors of Non-Attendance to the Postpartum Follow-up Visit. Matern Child Health J. 2016 Nov;20(S1):22–7.

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Abbreviations:

PMADs: perinatal mood and anxiety disorders

3T: third trimester

PP: postpartum

SDoH: social determinants of health

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