

Abstracts from National Perinatal Association 2020 Conference, December 2-4, 2020: New Framework for Multidisciplinary Care in the 4th Trimester

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The National Perinatal Association (NPA) is an interdisciplinary organization that strives to be a leading voice for perinatal care in the United States. Our diverse membership is comprised of healthcare providers, parents & caregivers, educators, and service providers, all driven by their desire to give voice to and support babies and families at risk across the country.

Members of the NPA write a regular peer-reviewed column in Neonatology Today.



"This year the chosen theme focused on the 4th Trimester and the various areas of vulnerability for parents and infants during this time, as well as the resources available for support."

NPA2020-1

Standards, Competencies and Recommended Best Practices for Infant and Family Centered Developmental Care (IFCDC) in the Intensive Care Unit Poster proposal for the National Perinatal Association Meeting

Joy V. Browne, Ph.D., PCNS, IMH-E (IV) and Carol Jaeger, DNP, RN, NNP-BC for the Gravens Interprofessional Consensus Panel

Background: Evidence for the benefits of developmental care for infants and families has expanded in the past two decades and there is now a strong body of evidence to support its implementation. There is no standardization of the education and application of developmental care by the interprofessionals and the parents that augment the holistic care for babies and families in intensive care nurseries. The interdisciplinary consensus panel, composed of professional leaders and parents, was established to identify and evaluate credible evidence to support the drafting of standards and competencies of infant and family centered developmental care to be practiced consistently and make a positive difference in the outcome of the baby and the family.

Content/Action: The consensus panel has met for five years to develop a model of empirically supported infant and family centered developmental cornerstones, that include systems thinking, individualized care of the baby and family, family integration with the interprofessional team members and practice, environmental protection that diminishes adverse responses from the baby and increases the opportunity for intimate interaction with the parents, neuroprotection of the developing brain of the baby, and recognizes the baby as a competent interactor. The quality of the evidence was evaluated by level, and the strength of the evidence was graded. Six areas of developmental practice were identified to apply the cornerstones

to practice, and articulate standards and competencies from which to standardize the practice of all members of the interprofessional collaborative team in the intensive care units. The six areas include systems thinking, positioning and touch for the newborn, sleep and arousal interventions for the newborn, skin-to-skin contact with intimate family members, reducing and managing pain and stress in newborns and families, and the management of feeding, eating and nutrition delivery of the baby. Professional and parent participants attending three Gravens meetings provided feedback to the consensus committee and an expert panel of interprofessionals also provided recommendations. An overview of this work has been published, and the standards and competencies are available on line.

Lessons learned: Currently there is no available standardization of developmental, family centered care for interprofessional use. The panel of leaders in the field worked collaboratively to examine the literature and produce well documented standards and competencies for practice in intensive care. Further work needs to support the implementation of the standards, competencies and best practices of IFCDC by the interprofessional collaborative health team in the hospital setting.

Implications for practice: The publication of these standards and competencies will be the first available empirically based interprofessional expectations for developmental care. To the extent that they can be readily implemented they will provide a national impact on developmental outcomes for babies and their families. Recommendations for inclusion of families, and transition of the baby and family from the hospital to communities, are infused throughout the document and should provide continuity for service provision from hospital to home.

NPA2020-2

Comprehensive postpartum care: Assessment

of varying provider practices and patient experiences.

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Introduction: Women experience challenges that affect their health and their ability to care for their infant during the postpartum period. Up to 40% of women do not attend the initial postpartum visit. We investigated how different types of providers manage postpartum education and assess current patients' concerns and challenges of the postpartum period. A prenatal assessment that identifies postpartum concerns could help providers develop individualized care plans that improve postpartum care.

Methods: Patients at a major urban OB/GYN clinic were recruited for an IRB-waived voluntary survey. Descriptive statistics, chi-squared tests, and odds ratios were used for analysis.

Results: Among the 250 women in their 3rd trimester, there were high levels of concern regarding breastfeeding (59.2%), experiencing "baby blues" (50.0%), losing pregnancy weight (50%), tiredness (64.0%), and pain after birth (60.0%). However, only 52.4% reported discussing plans to feed their baby postpartum with even less discussion on other important postpartum topics such as challenges they might experience (30.0%), physical activity (20.4%), and losing pregnancy weight (12.0%). Reported discussions regarding postpartum care by type of provider were statistically significant, with midwives less likely to discuss a postpartum care plan than medical doctors (OR .10; 95% CI 0.05-0.20; P<.001). However, patients reported midwives were as likely to discuss postpartum challenges (P=.9565).

Conclusion: Patients expressed postpartum concerns but less than half report discussions with providers on aforementioned topics. The

likelihood of reported discussions regarding postpartum care varied by type of medical provider, which highlights the potential benefits of multidisciplinary collaboration. We suggest that a standard 3rd trimester survey might improve postpartum care plans.

NPA2020-3

Helping Parents When the 4th Trimester is in the NICU- An Integrated Training Model for NICU Physicians

INNOVATIVE MODELS OF CARE

Background: Nearly all parents whose babies require NICU care experience some level of distress, with up to 20-60% developing postpartum depression, anxiety, or post-traumatic stress disorder. These conditions adversely impact parent-infant attachment and overall parenting behaviors, leading to higher risks of worse physical and developmental outcomes in the babies. Research suggests that providing psychosocial support to NICU parents can reduce their distress, depression, anxiety, and increase the possibility of the parent-infant bonding and attachment. Therefore, providing psychological care to families in the NICU may lead to overall healthier infant outcomes. However, it has been noted that many pediatric and neonatology trainees, and neonatologists, feel they do not have the self-efficacy care for distressed and anxious parents. In 2014, the American Board of Pediatrics Strategic Planning Committee identified the areas of behavioral and mental health as the highest priorities for education of pediatric trainees. This led to the development of the Roadmap Project, which advocates supporting "the resilience, emotional, and mental health of pediatric patients with chronic conditions and their families." While some neonatology fellowship programs teach communication skills for high stress situations, no comprehensive program exists in psychosocial care of NICU families. We have created the first such course for this purpose, in alignment with the Roadmap's Key Drivers. This poster will discuss the development and piloting process of this training program.

Action: This is a prospective educational intervention on neonatology fellows in the United States. All accredited neonatology fellowship programs have been contacted for possible enrollment of their fellows in the study. Consenting fellows complete, at a minimum, all portions of the online program including both assessments of self-efficacy and knowledge at all time points. Fellowship programs have the option to have their fellows participate in the evaluation of clinical fellow skill via parent evaluation. Fellows who are local to the children's hospital that holds the institutional review board approval for this study have been offered participation in simulated parent conversations that require prac-

tical application of the concepts found in the course. There are 27 available fellows considering participation in the simulation.

Enrolled fellows are given access to a 4-module online course covering the topics of Recognizing and Mitigating Parental Emotional Distress, Infant Distress, Communication, and Developmental Care. This course was modified specifically for education of neonatal fellows from a course already offered to NICU staff, called "Caring for Babies and Their Families: Providing Psychosocial Support in the NICU". The course has its foundation in the "Interdisciplinary Recommendations for Psychosocial Support of NICU Parents," as well as in the concepts of trauma-informed care. It is available at www.mynicunetwork.com.

A subgroup of fellows will go through a simulation session at an immersive learning center that has extensive experience in physician training via simulation, including simulations of emotional distress in the medical setting. The center will provide training of our selected simulated patients in conjunction with study team to ensure alignment with study goals. Simulated patients/parents will go through a minimum of 2 days of training on study scenarios. The fellows will each interact with a simulated patient representing a NICU parent confronting an "everyday" situation, as opposed to a situation requiring delivery of "bad news." Scenarios will be videotaped for later review. Fellows participate in these sessions for a half-day, personally perform in one scenario and watch scenarios of 2 other fellows. Groups of 3 fellows will participate in debriefings using video tape after each scenario.

Lessons Learned: This poster will discuss lessons learned from the development of the training program and provide highlights of program content. Additionally, through meetings with the identified field representatives during interdisciplinary collaborations between parents, neonatology, psychiatry, and psychology the authors will share topical insights regarding the teaching of mitigating both parental and infant distress for trainees. Topics include providing culturally sensitive care in the NICU, psychological impact of trauma on babies and their families, and effective communication strategies in the NICU.

Implications for Practice: The time is now to focus our efforts heavily on the fourth trimester. For parents who have an infant in the NICU, the fourth trimester comes way too soon and increases the potential for needed psychological support. Our project hopes to address a high priority educational need as identified by the American Board of Pediatrics and the Accreditation Council for Graduate Medical Education. A new core program requirement became active July 1, 2019 for pediatric training programs to develop curricula to train residents and fellows on screening for mental health issues in their patients and in the case of infants, in their parents. No national programs

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3:50PM- Intro to 2020 Virginia Apgar Award-

2020 Apgar awardee- Betty Vohr, MD, FAAP

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Presenters: Lily Lou, MD, FAAP; Mark Hudak, MD, FAAP;
David Stevenson, MD, FAAP; Bill OH, MD, FAAP

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exist for addressing this important topic, leaving programs to find local resources and craft individual and less comprehensive training. Our project could provide an example to other pediatric training programs. If found to be effective, our course, or elements of our course, could be adapted for the training of residents and fellows in other pediatric subspecialties.

Our project has the potential to impact thousands of NICU families at a crucial time for the development of their foundational relationships with their infants. High rates of distress have been documented in NICU families making the impact of trainee understanding, efficacy and skill at caring for them particularly important. Distress experienced by both parents and their infant(s) in the NICU may impair both the emotional and physical health of each, as well as the family's relationships throughout childhood, creating unseen negative impacts in both populations. Finally, our training program has the ability to address a known educational deficit, possibly impact thousands of parents and their infants, and provide a model for other pediatric training programs to adapt for their specific patient populations and needs.

NPA2020-4

A Critical Analysis of Intimate Partner Violence During Pregnancy in The United States

Elizabeth Filipovich, MPH

Abstract

Introduction: Intimate partner violence during pregnancy is a significant public health problem with several associated adverse maternal and fetal outcomes, including preterm labor, low birthweight and maternal mortality. This critical analysis will explore factors that contribute to the high incidence of IPV in pregnancy, current prevention best practices, and

interventions suited to reduce the incidence of IPV among pregnant women.

Methods: A literature review was performed using PubMed and George Washington University's Himmelfarb Health Sciences Library.

Results: Pregnancy is an optimal time to screen for IPV due to repeated contact with a care provider throughout a woman's pregnancy. Barriers to screening for IPV, inadequate provider education, lack of appropriate resources, and a lack of consensus regarding screening strategies and tactics contribute to lack of intervention for women who are experiencing IPV in pregnancy.

Conclusions: Progress in addressing IPV requires further research, including broad based controlled trials of intervention methods applied in diverse populations. In particular, studies comparing effectiveness of IPV intervention among various pregnant populations have the potential to determine whether the period of pregnancy presents a greater opportunity for success in reducing IPV than intervention at other times in a woman's life. Further research into the impact of IPV intervention on birth outcomes may provide critical information on which to base specialized programs of care for populations most at risk for low birth weight and preterm birth. Model programs have demonstrated effectiveness in reducing harm related to IPV using a combination of interventions. Testing these models can further the evidence base on which to build standard practices for effectively addressing this public health problem.

NPA2020-5

"Babywearing" as a Tool to Decrease Pain Associated with Neonatal Abstinence Syndrome

Introduction: Prescription opioid sales in the U.S. has almost quadrupled from

1999 to 2014; correspondingly, infants diagnosed with Neonatal Abstinence Syndrome (NAS) has increased more than fivefold. NAS is commonly associated with maternal opioid use and includes symptoms such as high-pitched crying, tremors, and poor feeding. Infants with NAS are accustomed to drug exposure in utero; consequently, when the drug is no longer present, the absence of the stimuli is painful. Elevated heart rate (HR) is synonymous with increased infant pain and stress in adults. Research on skin-to-skin or kangaroo care has found decreased perceptions of pain (i.e., HR) during heel prick procedures. The purpose of the study is to examine whether infant carrying or "babywearing" (i.e. holding an infant on one's body using cloth) can reduce stress and symptoms associated with NAS.

Methods: This repeated-measure study took place in a Neonatal Intensive Care Unit (NICU) in the Southwest USA. Starting when infants were four days old, physiological readings (N=97 readings; N=15 infants; 53% White, 20% Hispanic, 13% African American; 53% female) were assessed daily. Heart rates of infants and individuals wearing the infant (e.g. parents, nurses) were taken every 15-seconds before- (no touching), during- (20 minutes into being worn in a carrier) and post-babywearing (five to ten minutes later), approximately a forty-five minute procedure from start to finish. A finger plethysmograph, also known as a pulse oximeter, measured heart rate for the adults wearing the infants. Infants were continuously monitored by cardiopulmonary machines using a pulse oximeter wrapped around their foot.

Results: A 3-Level Hierarchical Linear Model (HLM) was used in order to account for the nested data (HRs nested within readings, nested within infant-adult dyads) at three time points (before, during, and after babywearing). We found that

babywearing decreased infant and caregiver heart rates. Approximately, across a 30-minute period, infants worn by parents decreased 15 beats per minute (bpm) compared to 5.5 bpm for infants worn by an unfamiliar adult, and adults decreased by 7 bpm (parents) and nearly 3 bpm (unfamiliar adult).

Discussion: Findings from this study suggest that babywearing is a non-invasive and accessible intervention that can decrease symptoms in infants diagnosed with NAS. Babywearing is cost-effective, culturally relevant, and can be done by non-caregivers (e.g., nurses, family members, friends). Results suggest that babywearing is especially calming when parents are the ones wearing the infants. Babywearing supports parenting by including the parent in the treatment and empowering them in caring for their infant. This intervention can be used outside of the NICU and provide additional support to parents and caregivers once infants are discharged. Close physical contact, by way of babywearing, can improve infant outcomes in NICUs as an alternative to pharmacological treatment.

NPA2020-6

Caring for Women and Their Families: Providing Psychosocial Support During Maternity Care

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Background: The Accreditation Council for Graduate Medical Education (ACGME) has outlined numerous milestones that residents in obstetrics/gynecology must achieve during their training. These include development of: 1-compassion, integrity, and respect for others, 2- respect for patient privacy, autonomy, patient-physician relationship, 3- interpersonal and communication skills necessary for communication with patients and families, and 4- interpersonal and communication skills necessary to provide informed consent and shared decision-making (ACGME, 2019).

We created an innovative online educational program focused on these often-neglected areas of training for all providers of maternity care, including physicians in training (residents and fellows), practicing physicians, nurses, and other practitioners at the bedside. A key principle of our program development was that it was both interdisciplinary and interprofessional, including contributions by patients. We

applied the concepts of trauma-informed care in the setting of providing maternity care as our foundation for training. We used as our exemplar an educational program we previously developed for all staff providing care in Neonatal Intensive Care Units. This program has been found to be effective at improving nurses' (the primary study population) knowledge and confidence in providing psychosocial support to NICU parents (Hall, 2019). Additionally, we wanted to satisfy the mandate passed by several states requiring that physicians who provide maternity care receive training in perinatal mental health issues.

Content/Action: A multidisciplinary and interprofessional team consisting of obstetricians, specialists in neonatal and perinatal medicine, nurse midwives, obstetric nurses, psychologists, and patients developed a 6-course online learning program that contains the following topics: 1- Using Trauma-informed Care as a Basis for Communication in Maternity Care, 2-Perinatal Mood and Anxiety Disorders: Providing Emotional Support During Maternity Care, 3- Providing Support During the Antepartum Period of Maternity Care; 4- Providing Support During the Intrapartum Period of Maternity Care, 5- Providing Support During the Postpartum (Fourth Trimester) Period of Maternity Care, and 6-Supporting Maternity Care Staff as they Support Patients. Patients contributed personal narratives to demonstrate learning points, collected resources they felt would be helpful to clinicians, and helped to review and edit all content. Each course describes how trauma-informed care can be integrated into obstetric care to ensure patients feel safe, and invested as partners in their own care at every step along the way. High risk social and emotional factors, and how to identify and respond to them, are enumerated. There are also multiple links to other sites on the internet that reinforce the content being presented, as well as downloadable documents that further enhance learning by demonstrating best practices. Courses have interactive cases to reinforce clinician learning. Each course has an extensive bibliography, and all content is firmly grounded in evidence-based literature.

Lessons Learned: An interdisciplinary and interprofessional model can be successfully used to create educational content for providers that speaks to their patients' needs. This model affords providers the opportunity to understand the patient experience from a deeper, more personal, and more meaningful perspective.

Implications for Practice: An innovative online learning program has the potential to widely disseminate educational content on providing psychosocial support, which is required in obstetric training but is not

often a specific part of training curricula. Enhancing provider understanding of the patient experience can lead to increased sensitivity to patient needs and improvement in both compassion and in communication skills. Attention to staff's own needs for emotional well-being is a critical part of the curriculum, as quality care can best be delivered by providers who can avoid burnout.

References:

1. ACGME. 2019. "ACGME Program Requirements for Graduate Medical Education in Obstetrics and Gynecology." Accreditation Council for Graduate Medical Education. https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/220_ObstetricsAndGynecology_2019_TCC.pdf?ver=2019-04-26-111908-393.
2. Hall, SL, ME Famuyide, SN Saxton, TA Moore, S Mosher, K Sorrells, CA Milford, and J Craig. 2019. "Improving Staff Knowledge and Attitudes towards Providing Psychosocial Support to NICU Parents through an Online Education Course." *Advances in Neonatal Care* 19 (6): 490-99. <https://doi.org/10.1097/ANC.0000000000000649>.

NPA-2020-7

Universal Maternal Home Visiting: A Public Health Cross-Jurisdictional Model

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Background: The North Shore Mother Visiting Partnership (NS MVP) was launched by Public Health Nurses (PHNs) from five communities on the North Shore of Massachusetts in January 2018 with a belief that all postpartum women in Massachusetts deserve to benefit from a maternal home visit after birth regardless of income, insurance status, age, health, or number of children. NS MVP nurses support families by performing perinatal mood disorder screenings, provide brief interventions, make referrals to support services, improve access to healthcare, address parental concerns, provide safe sleep education and connect families to their communities. Due to dwindling healthcare reimbursements on a federal and local level and lack of universal maternal home visiting program in the region, PHNs are working in a cross-jurisdictional capacity to

deliver an evidence-based model of care to families.

Content/Action: NS MVP uses a public health approach to mobilize community partnerships to identify and solve health problems, link families to needed health services and evaluate effectiveness, accessibility, and quality of personal and population-based health services. Creating a durable cross-jurisdictional mother home visiting model, resources such as, nursing staff, financial contributions, and program supplies become shared enabling NS MVP to maintain and expand the program into additional communities. Through the work of NS MVP, the participating PHNs have engaged with senior community leaders, Boards of Health, area health providers, State Department of Public Health (DPH), and Massachusetts legislators to advocate and raise awareness of prioritizing maternal and infant health in their communities.

Lessons Learned: NS MVP works in partnership with UMass Medical School's Center for Healthcare Financing and DPH's Welcome Family to identify insurance billing codes and explore reimbursement options to address sustainability of maternal home visiting in the Commonwealth. Additionally, NS MVP collaborates with Metropolitan Area Planning Council (MAPC) to develop a cross-jurisdictional model to formalize the participating communities' relationship as a North Shore Nursing Program. Currently, participating communities have signed a Memorandum of Understanding to capture current roles and responsibilities. The goal is to create an inter-municipal agreement by developing a robust governance and shared staffing, as well as a sustainable financial model that will enable the program to maintain and expand nursing services beyond home visits.

Implications for Practice: The formal collaboration of PHNs across municipal lines is a new and unique model designed to deliver vital Public Health services to a vulnerable population. While collaboration between PHNs in other areas such as disease investigation and staffing vaccination clinics is common practice, NS MVP is an innovative addition to local Public Health services. The numerous implications for practice include increased workforce efficiency and capacity, a strength based approach with a focus on wellness, and expanded nursing services aimed at decreasing numerous Health People 2020 maternal health goals. By having strong community partners, it is possible to provide families with a sense of well-being in their own community. All NS MVP nurses complete additional education in home vis-

iting, infant development and nutrition and maternal health. NS MVP nurses continually update their knowledge of evidence-based practices in the field of maternal-child health by attending conferences and seminars. Quantitative and qualitative data collected at each visit is evaluated and discussed at monthly planning meetings to guide the home visiting practice.

NPA-2020-8

Early Postpartum Contact: A Quality Improvement Project

Authors: Genevieve Hofmann, DNP, WHNP-BC and Amy Nacht, DNP, CNM, MPH

Innovative Models of Care

Background: Postpartum care in the United States (US) is inconsistent and fragmented. Nationally 40% of women forgo postpartum follow up (ACOG, 2018). At the University of Colorado School Of Medicine OB/GYN resident practice, over 60% of low-risk postpartum patients forgo postpartum follow-up. Low rates of postpartum follow-up lead to low rates of recommended screenings. In Colorado, 10% percent of postpartum women report symptoms of postpartum depression (PPD), and self-harm is the most common cause of pregnancy related mortality (Metz, Rovner, Hoffman, Allshouse, Beckwith, & Binswanger, 2016). Gestational diabetes, a pre-cursor to Type 2 diabetes, is on the rise (CDC, 2017). The American College of Obstetrics and Gynecology (ACOG) revised committee Opinion, *Optimizing Postpartum Care*, calls for a paradigm shift in postpartum care advocating for more patient-provider contact, ideally, within 3-weeks postpartum (ACOG, 2018). Proactive telephone support during the early postpartum period can bridge this gap in care (Lavender, Richens, Milan, Smyth, & Dowswell, 2013); (Danbjorg, Wagner, Kristensen, & Clemensen, 2015).

Content/Action: An early contact, proactive, phone call intervention was initiated. Eligible low-risk postpartum patients delivering at the University of Colorado Hospital in Aurora, Colorado received a nurse initiated phone call approximately 1-week after discharge.

Lessons Learned:

- Early contact did not significantly improve postpartum follow up (p = 0.78).

- Sixty-seven percent of patients were successfully contacted.
- Almost 50% of successfully contacted patients attended their appointment (p = 0.13).
- Average call time was 6.7 minutes (SD 4.2); non-English 9.4 minutes (SD 4.3).
- Women who attended their postpartum appointment received screenings and referrals.
- Patient experience with the early contact intervention was overwhelmingly positive.
- One hundred percent of the nurses providing the intervention stated it was "non-burdensome" to workflow.

Implications for Practice: Early postpartum contact is best practice. Early contact is feasible and acceptable as demonstrated by successful contact rates, brief call duration, and positive patient and nurse surveys. Continued evaluation of alternative means of patient contact during the postpartum period, including text messaging, utilizing patient portals, and telehealth are next steps to improving contact and care during the postpartum period.

Process maps, charts, tables, and other visuals are available to build a poster

References

- American College of Obstetricians and Gynecologists (2018). *Optimizing postpartum care. ACOG committee opinion No. 736. Obstetrics and Gynecology, 131, e140-150.*
- Centers for Disease Control and Prevention (2017). *Gestational Diabetes. Retrieved from <https://www.cdc.gov/diabetes/basics/gestational.html>*
- Danbjorg, D.B., Wagner, L., Kristensen, B.R., and Clemensen, J. (2015). *Intervention among new parents followed up by an interview study exploring their experience of telemedicine after early postnatal discharge. Midwifery, 31, 574-581.*
- Lavender, T., Richens, Y., Milan, S. J., Smyth, R. M., & Dowswell, T. (2013). *Telephone support for women during pregnancy and the first six weeks postpartum. Cochrane Database of Systematic Reviews, (7).*

Metz, T. D., Rovner, P., Hoffman, M. C., Allshouse, A. A., Beckwith, K. M., & Binswanger, I. A. (2016). *Maternal deaths from suicide and overdose in Colorado, 2004–2012. Obstetrics and gynecology*, 128(6), 1233.

NPA-2020-9

Mindful Mood Balance for Moms: A Scalable Digital Intervention to Prevent Relapse of Depression in the Perinatal Period

Laurel Kordyban, BA(1), Natalie Coleman, BA(1), Joseph Levy, BA(1), Laurel M Hicks, Ph.D.(1), Zindel Segal Ph.D.(2), Sherryl Goodman, Ph.D.(3), Sona Dimidjian, Ph.D(1).

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Introduction: Depressive relapse during pregnancy is highly prevalent particularly among women with recurrent depression. Maternal psychiatric morbidity associated with depressive relapse during pregnancy is a concern as is the deleterious impact of untreated mood disorder during pregnancy and the postpartum period on child development. Although maintenance antidepressant treatment is the standard of care for women with recurrent depression, concerns exist regarding known and unknown effects of fetal exposure to these agents. Due to this, many women seek non-pharmacologic alternatives to treatment during pregnancy. Mindfulness-based cognitive therapy (MBCT) is an efficacious intervention that prevents depressive relapse among pregnant women as compared to usual care. Despite MBCT’s effectiveness, there are barriers to dissemination, including availability of trained therapists, cost, time, transportation and stigma. We will describe an innovative digital program based on MBCT that is specifically designed for women during pregnancy and the postpartum period, Mindful Mood Balance for Moms (MMB for Moms). We also will highlight lessons learned in its development and how it may be used in practice.

Content: The MMB for Moms program is an 8-session self-guided digital program that is specifically tailored for pregnant women who have a history of depression but are currently euthymic or have residual depressive symptoms. In addition to the digital program, women are supported by a mindfulness coach who engages them at regular intervals throughout the program.

We will explain an overview of the content of the program and the role of coaching. We also will share first person experiences of the program among pregnant and postpartum women via video recordings. We will describe research that has examined the clinical benefits of this program and its evidence base.

Lessons Learned: We propose to share information about the importance of the coaching role and key mindfulness practices for the perinatal period. We will share lessons learned about engagement with the program and how to increase uptake.

Implications of Practice: MMB for Moms is a novel, scalable program that is designed to support women during pregnancy and the postpartum period who are at elevated risk of depressive relapse. This approach is in alignment with the US Prevention Task Force’s statement in support of offering preventative programs during pregnancy. Additionally, this program can be scalable and has the potential to reach women who experience barriers to receiving care.

NPA-2020-10

Evaluation of YouTube videos as a resource for improving health literacy in pregnant women with Opioid Use Disorder

Authors: Elizabeth Kravitz (BSA), Natalie Close (BS)

Introduction: In the setting of the opioid epidemic, the significant perinatal morbidity and mortality of opioid use disorder during pregnancy is well established (1). The increasing prevalence of associated complications is exacerbated by the poor health literacy in this country, inhibiting diagnosis and treatment (2). Around the world people of diverse backgrounds are looking to YouTube for their medical education (3). The purpose of our project was to evaluate the utility of YouTube videos as a source of education on opioid use disorder during pregnancy.

Figure 2: Data on videos with targeted audience of patient (total 86 videos)

Characteristic of Video	Result	Percentage (86 videos total)
Views (average)	2 0 , 4 5 6 views	
Average score	4.03	
Define Opioids	45 videos	52%
Defines Opioid Use Disorder	43 videos	50%

Includes consequences of OUD during prenatal period	23 videos	27%
Neonatal abstinence Syndrome	61 videos	71%
Ability to breastfeed	2 videos	2%
Mentions treatment	55 videos	64%
Includes how to get help	22 videos	26%
Source type:		
Professional	36 videos	4 2 %
Personal	17 videos	2 0 %
News	31 videos	3 6 %
Webinars	2 videos	2%

Methods: A YouTube search was conducted on October 26th, 2019 with the following search terms: “How to quit opioids during pregnancy”, “opioid addiction treatment during pregnancy”, and “opioid detox during pregnancy”. The first 100 videos for each search term were sorted by relevance and videos were excluded if they were duplicates, silent videos, in a language other than English, or if they had no mention of opioid use disorder or pregnancy. A 12-point scale was developed matching the American College of Obstetrics and Gynecology patient education resource (figure 1). This scale was applied to each video in order to evaluate its utility for a patient population. Videos were sorted based on how many of the 12 points were included. Less than 4 points were deemed poor utility, 4 to 6, mild utility, 7 to 9, moderate utility, 10 to 12, excellent utility.

Results: Of the total 300 videos, 113 remained after exclusion criteria were applied, 86 of those had a targeted audience of a patient or the general public. Of the videos targeted to the patient or general public, the average utility score was 4.02. Only one of these videos qualified as excellent utility, 17 were moderate utility, 38 were mild utility, and 39 were poor utility. Other salient results from the scoring of the videos with an audience of patients/public can be seen in figure 2.

Discussion: YouTube videos offer a platform for health education that can address people with a spectrum education levels regardless of their geographic location. Yet, our results show a strikingly limited availability of adequate, comprehensive education for this patient population. Perhaps most remarkable, only 52% of videos defined opioids, and only 50% defined opioid use disorder, highlighting the striking deficiency in this selection of videos. These resources failed to promote the mother-baby dyad, with a particular focus (71% of videos) on Neonatal Abstinence

Syndrome, but only 26% offering information to mothers on how to find help. Additionally, there was minimal acknowledgment of the prenatal risks of opioid use during pregnancy, with only 27% of videos addressing any risk at all. This study not only highlights the initial shortcomings of YouTube videos regarding this topic, but also emphasizes the need for further resource investment by the medical community utilizing YouTube as a resource for improving health literacy.

1. Committee Opinion No. 711: Opioid Use and Opioid Use Disorder in Pregnancy. (2017). *Obstetrics & Gynecology*, 130(2), e81–e94.
2. Nierengarten, M. (2018). Improving health literacy. *Contemporary OB/GYN*, 63(6), 42–45.
3. Tackett, S., Slinn, K., Marshall, T., Gaglani, S., Waldman, V., & Desai, R. (2018). Medical Education Videos for the World: An Analysis of Viewing Patterns for a YouTube Channel. *Academic Medicine*, 93(8), 1150–1156.

Figure 1: Proposed scale to measure utility of videos

Key Areas of Content	Points
Defines opioids	1
Defines opioid use disorder/abuse?	1
Prescription opioids can lead to abuse	1
What are the risks during a pregnancy?	
Placental abruption	0.5
Prenatal complications	0.5
Preterm birth/labor	0.5
Stillbirth	0.5
Neonatal Abstinence Syndrome	1
How is it treated during pregnancy?	
Methadone	0.5
Buprenorphine	0.5
Explanation of access/administration of meds	1
Benefits of Treatment	1
Risks of Treatment	1
Breastfeeding on Methadone/Buprenorphine	1
How to get help	1

NPA2020-11

Innovative Models of Care:

Neonatal Social Work Care Coordination in the NICU and NICU Follow-up Programs

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Background: According to the Council on Children with Disabilities and Medical Home Implementation Project Advisory Committee, “Care Coordination is an essential element of a transformed American health care delivery system that emphasizes optimal quality and cost outcomes, addresses family-centered care, and calls for partnerships across various settings and communities.” The NICU Follow-up Program at Nationwide Children’s Hospital monitors the developmental progress of eligible NICU graduates until the age of 3 years, but retention rates have been variable. The need for education and guidance to NICU families regarding recommendations for their child’s follow-up and a process to identify and problem-solve barriers to care was much needed. This led to the development of Neonatal Social Work Care Coordination Services (NEOSWCCS). This specialized social work program specifically addresses the transition from hospital to home and provides partnership with families to help them better understand the goals of developmental surveillance and intervention as well as problem solve practical barriers to care which may interfere with program retention.

Content/Action: The poster will showcase this specialized program, Neonatal Social Work Care Coordination Services (NEOSWCCS), which was initiated in October of 2016. Patients discharged from the NICU are eligible for NEOSWCCS if they meet specific criteria potentially associated with non-adherence (e.g. parents with cognitive limitations, mental health issues, language barriers) or if the child’s healthcare needs are especially complex. Once a patient is identified as eligible for NEOSWCCS, attempts are made by the Neonatal Social Work Care Coordinator (Neo SWCC) to meet families referred to the NICU Follow-up Program prior to their discharge from the NICU. The Neo SWCC provides parent education about the clinic their child will be attending and the importance of developmental monitoring and intervention. Barriers to follow-up care are also explored during this initial face-to-face intake and the Neo SWCC then links families with available resources to mitigate these barriers.

In addition, the Neo SWCC completes a phone call approximately one week after discharge to assess for post-discharge needs and during the week prior to the initial developmental evaluation (typically at 3-4 months corrected age) to provide information regarding what to expect for the evaluation and explore barriers to care. The Neo SWCC has also led an initiative developing systems to follow up on non-compliance in the clinics which includes a triage process for high risk patients. This has been a multidisciplinary effort rolled into standard operating procedures for the clinics.

Lessons Learned: Developing clear criteria for patient eligibility and having pre-existing clinical relationships with the multidisciplinary team in the NICU was essential. Both helped to identify patients, facilitate communication with the families, and for identification of barriers to care. Challenges during the implementation of this program include slower or missed identification of eligible families for NEOSWCCS during planned and unplanned absences of the Neo SWCC as well as an insufficient tracking system to evaluate circumstances affecting data.

Implications of Practice: The implementation of NEOSWCCS allows for targeted interventions specific to helping families transition from their NICU care to outpatient follow-up thus increasing the retention rates and developmental follow-up. The NICU Follow-up Program at Nationwide Children’s Hospital averages 5,000 completed visits each year. Average completion rate of the D1 developmental evaluation (3-4 months corrected age) in the NICU Follow-up Program in 2016 was 52%. In 2018, the rate increased to 89% (for completion of initial developmental evaluation) for patients eligible for NEOSWCCS. Results will be illustrated through tables and will include data from 2019.

NPA2020-12

Family Infant Neurodevelopmental Education (FINE)

Poster proposal for the National Perinatal Association Meeting

Author: Debra Paul, BS, OTR/L (parent) and Joy V. Browne, Ph.D., PCNS, IMH-E (IV),

Background: Developmental care is a globally accepted and evidence based approach to optimizing outcomes for babies and their families. Through the work of Dr. Heidelise Als, Beverly Johnson and others, and now with recommended standards and competencies in Europe, Canada and the United States, developmental, family

centered care is becoming the expected norm. The gold standard for education and implementation of this approach is the Newborn Individualized Developmental Care and Assessment Program (NIDCAP; www.nidcap.org) which has 22 training centers worldwide. However, training in the NIDCAP program is complex and has not been well accepted as a model in the US. In the past decade a foundational program, referred to as Family Infant Neurodevelopmental Education (FINE) program was developed in Europe to meet the needs of NICU professionals who wish to have more empirically supported strategies for implementing basic practice in neurodevelopmental care. There are two levels of the FINE program, a two day foundational education program for all NICU professionals (FINE 1) and a 12 week individualized program for those who wish to have a more in depth mentored experience incorporated into their practice (FINE 2). Both are intended to be foundational for those who wish to become NIDCAP Professionals.

Content/Action: In 2019 the two day FINE 1 program was implemented in US locations with over 320 interdisciplinary professionals. At the conclusion of FINE 1 training, attendees identified a variety of areas where they want to implement infant and family supportive strategies into their NICU caregiving. Themes included: enhanced integration of families in infant care, more consistent kangaroo mother care, pain prevention and alleviation, avoidance of sleep disruption, better positioning and alignment for babies, and demand feeding practices. An overview of the components of FINE training that are most salient for NICU professionals as well as specific data regarding how attendees plan to utilize the information from the FINE 1 program will be provided. One year follow up data are currently being obtained to determine long term follow through on how attendees have implemented evidence based family centered and developmental care practices.

Lessons learned: The FINE program appears to be well accepted and has implications for evidence based developmental care. It has been developed to be consistent with the Gravens Standards and Competencies for Infant and Family Centered Developmental Care (see abstract by Browne and Jaeger) and the European Foundation for the Care of Newborn Infants (EFCNI) standards for newborn health in Europe.

Implications for practice: Neurodevelopmental care practices are evidence based with standards for implementation in all NICUs. FINE 1 training provides foundational training that is consistent with best practice and provides rationale for

optimizing infant and family support during hospitalization. With data now being accumulated, we will have a better understanding of what practices are consistently implemented and utilized as a result of attending the FINE 1 training.

NPA2020-13

The impact of sociodemographic characteristics on postpartum depression in Hispanic women

Authors: Sneha Rajendran, BS,BA, Mary S. Dietrich, PhD, MS, Melanie Lutenbacher, PhD, MSN, RN, FAAN

INTRODUCTION: Hispanic people living in the United States “bear a disproportionate burden of disease, injury, death, and disability” when compared to non-Hispanic white people(1). Postpartum depression falls into this category. Despite similar rates of postpartum depression in women of differing ethnicities, among low-income women, the odds of starting and continuing treatment for postpartum depression following delivery are significantly lower for Hispanic women compared to white women(2). Barriers to care has been hypothesized as a potential explanation, but has not been supported(3). Other possible factors that may contribute to the healthcare disparity Hispanic women with postpartum depression face must be examined. Evidence suggests that various sociodemographic characteristics and maternal factors such as age(4), breastfeeding duration(5), and intimate partner violence(6) may be associated with postpartum depression. This study further examines these and other maternal factors and their potential relationship with reliable change in the levels of depressive symptoms from late pregnancy to two months and six months postpartum in a sample of Hispanic women living in Davidson County, TN.

METHODS: Data for this secondary analysis were collected in an RCT conducted from July 2014 to September 2016 which assessed the efficacy of the Maternal Infant Health Outreach Worker (MIHOW) program (www.mihow.org), a peer mentoring home visitation program, in a sample of 188 Hispanic women(7). A prospective, longitudinal experimental design with two study groups: comparison (printed educational material) and intervention (MIHOW home visits plus printed educational material) was used. Eligibility criteria included: age \geq 18, self-identification as Hispanic, confirmation of pregnancy \leq 26 weeks gestation, and residence within 30 miles of study offices. Data was collected at five time points (prenatal through six months postpartum) using validated measures

and questions from national surveys. The study was approved by the Vanderbilt University Institutional Review Board. The sample for the secondary analysis included the 178 participants who completed the parent study and their de-identified data related to: levels of depressive symptoms, acculturation, health literacy, parenting stress, and education, breastfeeding intent, duration, and self-efficacy, time living in the US, maternal age, presence of a medical provider, health insurance, and presence of infant NICU stay. Multivariate logistic regression was used to analyze the significance of each of these demographic variables in explaining variance in reliable change in level of depressive symptoms. The following three variables were used as co-variables to control for changes in the outcome variable: 1) gestational age at study enrollment, 2) level of depressive symptoms at baseline, and 3) parent study group assignment.

RESULTS: The average maternal age at enrollment was 29.6 years (SD= 6.5). The median gestational age was 17.5 weeks. The median time lived in the USA was 9 years (IQR= 3-13). Mexico had the largest representation of home country (66.9%), followed by Honduras (15.7%) and El Salvador (9.6%). 19.3% of the subjects had graduated high school or completed a GED. 68.5% of the subjects earned less than \$10,000 yearly in family income, and 28.1% earned between \$10,000-\$15,000. Of the factors examined, the presence of health care coverage at two months postpartum was associated with a statistically significant decrease in level of depressive symptoms ($p = 0.017$, 95% CI 1.279 - 12.763) and a higher parental stress score at six months postpartum was associated with a statistically significant increase in level of depressive symptoms ($p = 0.02$, 95% CI 0.842 - 0.986).

DISCUSSION: The findings have clinical and research implications. Helping patients access available health care coverage and resources that may help lower their parenting stress are important factors to consider when caring for Hispanic women, particularly those with postpartum depression. Future research related to postpartum depression should include these variables and potential evaluation of interventions that may impact change. Further research into this healthcare disparity will increase our understanding of characteristics and maternal factors that may contribute to variability of depressive symptoms in Hispanic women and serve as the underpinnings for targeted culturally competent interventions and policies for a growing minority in the United States.

REFERENCES

(1) *CDC: Health Disparities Experienced by Hispanics --- United States*

(2) Kozhimannil, K. B., Trinacty, C. M., Busch, A. B., Huskamp, H. A., & Adams, A. S. (2011). *Racial and ethnic disparities in postpartum depression care among low-income women. Psychiatric Services, 62*(6), 619-625.

(3) Salameh, T. N., Hall, L. A., Crawford, T. N., Staten, R. R., & Hall, M. T. (2019). *Racial/ethnic differences in mental health treatment among a national sample of pregnant women with mental health and/or substance use disorders in the United States. Journal of psychosomatic research, 121*, 74-80.

(4) Robbins, C., Boulet, S. L., Morgan, I., D'Angelo, D. V., Zapata, L. B., Morrow, B., ... & Kroelinger, C. D. (2018). *Disparities in preconception health indicators—Behavioral risk factor surveillance system, 2013–2015, and pregnancy risk assessment monitoring system, 2013–2014. MMWR Surveillance Summaries, 67*(1), 1.

(5) Lara-Cinisomo, S., McKenney, K., Di Florio, A., & Meltzer-Brody, S. (2017). *Associations between postpartum depression, breastfeeding, and oxytocin levels in Latina mothers. Breastfeeding Medicine, 12*(7), 436-442.

(6) Ogbo, F. A., Kingsley Ezeh, O., Dhimi, M. V., Naz, S., Khanlari, S., McKenzie, A., ... & Eastwood, J. (2019). *Perinatal distress and depression in culturally and linguistically diverse (CALD) Australian women: the role of psychosocial and obstetric factors. International journal of environmental research and public health, 16*(16), 2945.

(7) Lutenbacher, M., Elkins, T., Dietrich, M.S., Riggs, A. (2018). *The Efficacy of using peer mentors to improve maternal and infant health outcomes in Hispanic families: Findings from a Randomized Clinical Trial. Maternal and Child Health Journal, 22* (supplement 1), 92-104.

understanding of the complex emotions families face with regard to child illness during holidays. The goal is to summarize the literature and offer recommendations to NICU providers on how to best assist families around celebratory events.

Content/Action: Existent literature on family experiences in the NICU during holidays was examined, including: review of academic articles, qualitative examination of personal stories from families, and input from NICU providers.

Lessons Learned: Recommendations are made towards financial/transportation support available to families, the utilization of parent support and activity groups, integrating volunteer assistance from previous graduate families of the NICU, and utilizing a family-centered approach to care with regard to celebrations and holidays. Additionally, emphasis is placed on the provider's knowledge of outside resources/nonprofits dedicated to supporting families in the NICU.

Implications for Practice: A thorough understanding of the family's experience in the NICU during celebrations will help providers address challenges with effective evidence-based care. Provision of open dialogue, celebratory programs for parents within the NICU, and knowledge of outside resources can improve coping among parents. Current literature and resources in this area are limited.

Providers should consider the role of outside factors that further complicate the NICU experience, such as time divided between home and the bedside.

NPA2020-15

Innovative Models of Care

TITLE OF ABSTRACT A Provider Education Model for Supporting Caregivers and Vulnerable Infants in the Fourth Trimester

Petora Spratt, P.T., D.P.T., IMH-E (III) Emily McNeil, L.C.S.W., IMH-E (IV), Debra Paul, OTR (parent), and Joy Browne, Ph.D., PCNS, IMH-E (IV).

Background: Infants and their families who transition from NICU to their communities are typically followed by early intervention and/or public health nurses. Medical complications, invasive procedures and many unknowns during hospitalization for both infants and their families result in physical, mental and behavioral health issues that require appropriately informed mental health supports. Currently there is little mental health information and/or approaches in basic educational programs for providers that address the develop-

OPIOIDS and NAS
When reporting on mothers, babies,
and substance use
LANGUAGE MATTERS



I am not an addict.

I was exposed to substances in utero. I am not addicted. Addiction is a set of behaviors associated with having a Substance Use Disorder (SUD).



I was exposed to opioids.

While I was in the womb my mother and I shared a blood supply. I was exposed to the medications and substances she used. I may have become physiologically dependent on some of those substances.



NAS is a temporary and treatable condition.

There are evidence-based pharmacological and non-pharmacological treatments for Neonatal Abstinence Syndrome.



My mother may have a SUD.

She might be receiving Medication-Assisted Treatment (MAT). My NAS may be a side effect of her appropriate medical care. It is not evidence of abuse or mistreatment.



My potential is limitless.

I am so much more than my NAS diagnosis. My drug exposure will not determine my long-term outcomes. But how you treat me will. When you invest in my family's health and wellbeing by supporting Medicaid and Early Childhood Education you can expect that I will do as well as any of my peers!

Learn more about
Neonatal Abstinence Syndrome
at www.nationalperinatal.org



mental and mental health issues of newborns and young infants. The BABIES and PreSTEPS model has been developed to provide providers in the community with appropriate education to address mental, physical and developmental health issues of this vulnerable population and their families.

Content: Data will be provided from surveys of providers in four states (AK, CO, IN and AZ) indicating a lack of specific training for physical, developmental and mental health assessment and intervention for fragile newborns and their families. Description of the BABIES (Biophysiological, Arousal and Sleep, Body Movement, Interaction with others, Eating and Soothing) and PreSTEPS (Predictability and continuity, Sleep and arousal supports, Timing and pacing, Environmental modification and Soothing strategies) model will be presented to include assessment and intervention guidance for supporting fragile newborns and their parents in the fourth trimester. Infant Mental health Diversity Tenets and Reflective Practice best prac-

NPA2020-14

NPA ABSTRACT SUBMISSION (for post-er presentation)

TITLE OF ABSTRACT Family Celebrations: A NICU Perspective Navy Spiecker, BA, Pamela A. Geller, PhD, Chavis A. Paterson, PhD

Background: For many parents, celebrations can be a joyful time; however, for those with an infant in the NICU, holidays can cause conflicting emotions. Parents face difficulties integrating celebration with the anxiety they may be simultaneously experiencing. Additionally, parents may feel isolated as they manage their infant's illness or bereavement while other families participate in celebratory activities. This project seeks to offer a greater

tices are used in the year long learning collaborative. Descriptions of state wide provider practice outcomes as a result of engaging in the educational program will be provided.

Lessons learned: A mental health informed practice including reflective opportunities are essential to best support fragile newborns and young infants and their families in the fourth trimester. Although essential to the recovery of infants and parents after hospitalization, providers do not have the educational background to incorporate mental health approaches into their currently utilized intervention strategies. Parents are the best supporters of regulation in the fourth trimester, an essential developmental task of newborns. Support for both providers and families during this vulnerable time is essential.

Implications for practice:

NPA2020-16

NPA Innovative Model of Care Proposal

Title: Baby Attachment and Comfort Interventions (BACI): A multidisciplinary intervention to support parents and neonates in a cardiac neonatal intensive care unit in the first weeks after birth

Authors: Rochelle Steinwurtzel, Katharine Press Callahan, Elvira Parravicini

Background: Parents with babies in the Neonatal Intensive Care Unit (NICU) due to congenital heart disease (CHD) are at high risk for stress in the context of long-lasting emotional, familial and financial costs associated with diagnosis, hospitalizations, and ongoing treatment. Babies hospitalized in the NICU for CHD often experience multiple traumas related to physically stressful medical procedures while experiencing a loss of other developmentally appropriate sensory inputs. Simultaneously, they experience the additional stressor of separation from their parents whose role is to facilitate a sense of security through a constant, loving and responsive relationship.

It is essential for parents to buffer infants' stress levels. If parents are overwhelmed by their own stress levels associated with the NICU experience, their capacity to effectively regulate the baby's stress becomes compromised. Trauma-informed care in the NICU empowers staff to support parents and in turn neonates. Similarly, palliative care principles focus on improving quality of life and reduce suffering while enhancing families' decision-making capabilities through early integration of interdisciplinary interventions.

Content/Actions: The Baby Attachment

Comfort Interventions (BACI) is an innovative method of early palliative care developed and validated by the Neonatal Comfort Care Program at NewYork Presbyterian, Columbia University Irving Medical Center in an effort to support parents and enhance comfort of all hospitalized neonates, regardless of prognosis (Callahan, K., Steinwurtzel, R., Brumarie, L., Schechter, S., & Parravicini, E. Early palliative care reduces stress in parents of neonates with congenital heart disease: validation of the "Baby, Attachments, Comfort Interventions. *J Perinatology*. 2019; 39(12):1640-1647). BACI utilizes palliative care and trauma-informed care concepts with a focus on supporting parents so they can more effectively co-regulate their hospitalized babies. BACI focuses on four domains: bonding, feeding, memories, and emotional, psychological, and spiritual support. The intervention is provided by the interdisciplinary BACI team, which includes the Neonatal Comfort Care Program core team (a neonatologist/medical director, nurse, and social worker) and other NICU professionals including a psychologist, speech pathologist, Child Life specialist, and chaplain. Overall, BACI team members meet with parents an average of 4 times per week and offer a variety of services that are tailored to the individual family and the neonate's medical condition. Services include opportunities for skin-to-skin, developmentally-appropriate touch and positioning, non-nutritive suck or colostrum care, memory-making, and psychological and spiritual support. Additionally, BACI helps support bedside staff and foster opportunities for parental involvement in pleasurable dyadic experiences between parent and baby.

Lessons Learned: Based on previously published findings (Callahan et al., 2019), the BACI program significantly reduces stress in parents of infants with CHD. The BACI program requires the focused attention and availability of the BACI team, in addition to their regular job roles.

Implications: This program requires dedicated time and resources to provide the consistent, multidisciplinary care parents need to feel psychologically safe in the cardiac NICU. Future research could assess whether effects on parental stress persist long-term or how this program impacts the stress of staff.

NPA2020-17

Redefining the Postpartum Care Rotation for OB/Gyn Interns

Authors: Julia Switzer, MD; Aref Senno, MD; Kavisha Khanuja, MD; Abigail Wolf, MD

Background: Increased recognition of the importance of the 'fourth trimester' and the pressing need to reduce maternal morbidity and mortality, has led many professional organizations, including ACOG, to encourage a renewed focus on postpartum care. Changing the culture of practice requires changing the way we teach our trainees. Resident training in OB/Gyn is rigorous and historically has not allowed for focused study of the postpartum period. Postpartum rounding is typically done early, quickly, and as an afterthought to other responsibilities such as managing patients on Labor and Delivery and in Triage. The ACGME Milestones Project helps to define the developmental steps necessary for a resident to move towards independent practice. Advanced milestones for The Care of the Postpartum Patient include ability to effectively counsel patients on antenatal, intrapartum and postpartum complications, collaboration with other members of the health care team in postpartum care and application of innovative approaches to the management of patients in the postpartum period. There is currently no literature regarding how to teach OB/Gyn residents about comprehensive postpartum care.

Action: In order to emphasize the importance of the fourth trimester, we created a postpartum care rotation to allow time for the resident to provide culturally sensitive and individualized care, be directly observed and receive feedback in the postpartum care environment, and to learn about the complications of the postpartum period. Under the guidance of their attending, the resident independently manages the care of the postpartum service. Care coordination is a large part of the rotation. The resident works with hospital social workers, case management, lactation consultants, medical consultants and outpatient practice members to individualize the outpatient follow up needs of all patients while learning to manage an inpatient service. During this block the resident also staffs a dedicated outpatient postpartum clinic two afternoons per week. Assigned learning tasks of this rotation include: completion of a breastfeeding training course; direct observation of the informed consent process, implicit bias training with reflection and discussion of perinatal mood disorders.

Lessons Learned: Feedback regarding this rotation was collected through resident interviews. Recognized benefits of the rota-

tion include: perception of appropriate time for counseling specifically around contraceptive choices in medically complex patients, understanding of lactation and feeding concerns, decreased stress regarding the time spent on the postpartum unit (and therefore away from Labor and Delivery or other responsibilities) while counseling patients, increased utilization of video interpreter services, and generation of ideas for quality improvement projects. Residents have the opportunity for continuity in that they can schedule and see patients in the outpatient setting whom they have cared for while inpatient. One-on-one rounding with the attending provides more opportunity for direct observation of patient care, patient handoffs, discharge planning and patient counseling. Patients are also invited to provide feedback on the resident's professionalism, communication skills and medical care. Concerns about the rotation included an increased burden of administrative paperwork on the resident and a sense of highly repetitive work. Faculty development is needed in order to change the approach to the postpartum rounding and allow for direct teaching with the resident.

Implications for Practice: By creating a dedicated postpartum rotation with specific learning goals and objectives, we are demonstrating to our trainees that this aspect of care is critically important to development as an Ob/Gyn physician. Participation in a focused postpartum rotation may therefore improve attention to this aspect of care once the resident enters independent practice. In addition, the postpartum unit is an optimal environment to promote interprofessional education and teamwork. Direct observation in this environment allows for timely feedback on performance which aligns with the ACGME milestones for OB/Gyn Residency Training.

NPA2020-18

Innovative Models of Care: Essential Knowledge and Competencies for Psychologists Working in Neonatal Intensive Care Units (POSTER)

Authors: Willis, T., Saxton, S., Dempsey, A., Baughcum, A., Chavis, L., Hoffman, C., Fulco, C., Milford, C., & Stenberg, Z

Background: The role of the neonatal psychologist is multifaceted, with psychologists embedded in inpatient NICUs, outpatient NICU follow-up developmental clinics, and fetal care centers. Consistent with efforts of other sub-specializations to delineate training and competency guidelines to prepare psychologists in subspecialty fields (e.g., Jerson, Cardona, Lewallen, Coleman, & Goyette-Ewing, 2015; McDaniel et al., 2014; Palermo et al., 2014), the proposed poster will present an aspirational model that begins to define competency in the sub-specialization of neonatal psychology. Our general framework was adapted from a paper on training and competency standards for psychologists in primary care (McDaniel et al., 2014), which was based on competency models in psychology that focus on achievement of measurable, behavioral learning objectives rather than a focus on curriculum (Kaslow, 2004). The model includes six clusters: Science, Systems, Professionalism, Relationships, Application, and Education. Each of these clusters is subdivided into associated competency groups, and each of which has its own table with specific knowledge/skills.

Content/Action: To identify the key knowledge and abilities to be included within each competency table, the workgroup evaluated literature of behavioral health issues that present in NICUs and consulted a number of different groups that included NICU psychologists, physicians, clinicians, therapists, and parents. Over a 2-year period (2017–2019), the workgroup generated a list of key knowledge and abilities for each competency group. Once all tables were populated, each workgroup member reviewed all material contained across the competency tables and identified areas of overlap within and across tables, added additional items they felt were omitted, and indicated the six to ten over-arching themes that summarized the items within each competency group.

Lessons Learned: It is important to note

that the identified areas of knowledge and abilities are provided as a general reference and are not intended to be prescriptive. Psychologists pursuing this area of subspecialty are not expected to have expertise in all of these areas. The utility of each competency and specific knowledge area will vary depending on the psychologist's role, setting, time dedicated to NICU work, and/or service level of the NICU.

Implications for Practice: Given the array of expectations for neonatal psychologists, specialized training that goes beyond the basic competencies of a psychologist in general practice and includes a wide range of learning across multiple domains is needed. For both trainees and practicing psychologists who seek to work as a neonatal psychologist, we strongly recommend seeking education and training in (1) infant mental health, focusing on the dyadic relationship; (2) identification and treatment of perinatal mood and anxiety disorders and trauma; (3) family systems practice and impact of pediatric medical condition on coping/adjustment, and (4) provision of integrated mental health services in a medical setting. Additionally, the neonatal psychologist's role may vary greatly across NICUs; the ability to conduct a needs assessment and develop and evaluate programs is critical, particularly when establishing new psychological services. Achieving competency will enable the novice neonatal psychologist a more successful transition into a highly complex, fast-paced, often changing medical environment, and ultimately, provide the best care for the infants and their families.

NPA2020-19

Revisiting the Postpartum Home Visit: A Call to Action

Author: Yeman, Jodi

Background: Postpartum health care has been reduced to a 48-96 hour hospital stay depending on the type of delivery, followed by a 6 week postpartum clinic visit that marks the end of the postpartum period by all conventional standards. The United

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States maternal mortality rate continues to climb with a 26.6% increase from 2000 to 2014. Approximately 15-20 % of postpartum women will develop postpartum depression within the first year of after delivery which has generated much discussion surrounding the most effective way to identify those at risk and provide adequate support and management. In light of these statistics the conversation surrounding how to best meet the postpartum needs of women and newborns has been renewed.

In 2018 the American College of Obstetricians and Gynecologists (ACOG) proposed redesigning postpartum care with the goal of providing a more holistic approach to what is known as the 4th trimester, addressing areas such as mood and emotional well-being, maternal infection, infant care and feeding along with addressing sleep and fatigue issues to name a few.

A successful postpartum home visit program addressing the 4th trimester already exists that encompasses many of ACOG's goals. The Duke Family Connects model has been studied in two randomized controlled trials demonstrating improved mother mental health, reduced emergency care for participating infants of 59%, enhanced home environments and greater community connections to programs like Nurse-Family Partnership for continued long-term continuity of care. The Family Connects program studied demonstrated that for each program \$1 spent, a savings of \$3.04 in emergency care costs was produced.

Content/Action: Postpartum home visits should be incorporated as the standard of care for pregnant women and considered part of the multidisciplinary team that supports and cares for new families during this critical life transition using the Duke Family Connects as a model. Current evidence supports the benefits of providing home nurse visits in reducing readmission rates for both newborns and mothers as well as promoting family bonding.

Lessons Learned: Successful postpartum home visit programs should begin before the family is discharged home. The home visit nurse needs an opportunity to establish rapport with the family and time to assess and evaluate their unique needs prior to delivery. Many women find it challenging and burdensome to make multiple doctors visits once the baby arrives. Home visits are patient centered and scheduled around convenience for the family. A postpartum home visit program can facilitate

individualized transition of care plans to community resources for those families that need continued care beyond the 4th trimester.

Implications for Practice: With the Postpartum home visit model as the standard of care, women will have access to quality care that is timely and holistic. Postpartum home visit studies to date reflect improved outcomes for both mom and newborn as well as reduction in cost related to decreased readmissions. Successful programs already exist and include interactions with and assessment of the family prior to delivery. Ultimately, if implemented as part of the standard of care for child-bearing families, postpartum home visits could bridge the gap in care during the 4th trimester and reduce maternal and infant morbidity and mortality in the United States.

Disclosure: The National Perinatal Association www.nationalperinatal.org is a 501c3 organization that provides education and advocacy around issues affecting the health of mothers, babies, and families.

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