Preventing Mental Health Symptoms after a Cesarean Delivery

University of Colorado
Anschutz Medical Campus

Cassidy Calderon[1], Desiree Starzyk, BS[2], Cristina Wood, MD, MS[3], Susanne Klawetter, PhD, LCSW[2] Allison Dempsey, PhD, PMH-C[2]

[1]Psychiatry Undergraduate Research and Learning Experience (PURPLE), [2]Department of Psychiatry, Anschutz Medical Campus, [3]Department of Anesthesiology, Anschutz Medical Campus

Contact me:

Background

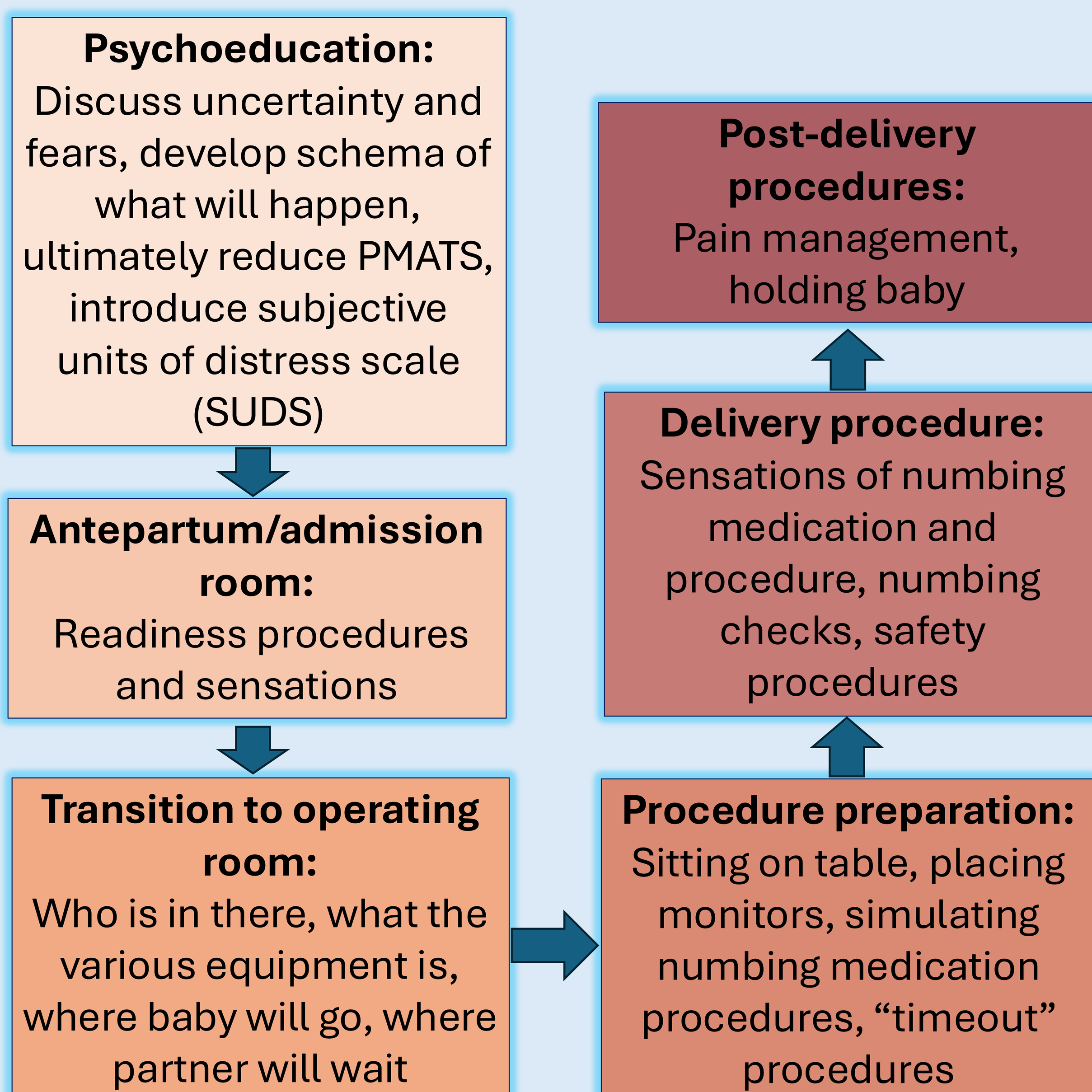
- **Perinatal mood, anxiety, and trauma symptoms (PMATS):** most common complication of pregnancy (1 in 6 pregnancies)
- Left untreated, PMATS can have severe consequences (maternal health complications, poor infant-parent bonding, mental health risks in child, suicide, infanticide, etc.)
- Recent study showed **suicide was leading cause of maternal mortality, followed by substance abuse**
- Current models addressing PMATS focus on treating symptoms after they have already developed rather than preventing PMATS symptoms before they arise

Objectives

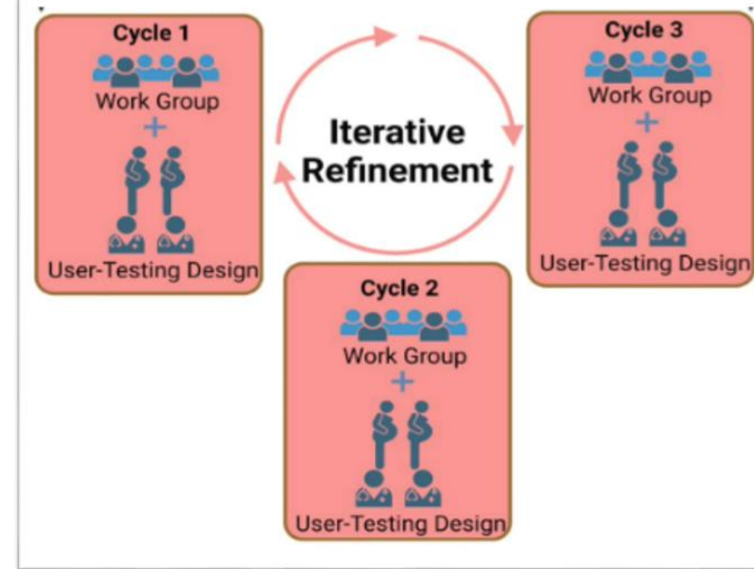
- Pilot 1-hour, single session **brief exposure intervention in operating room (BE-OR)**
- **Prevent PMATS development** among population of patients with high-risk pregnancies and anticipated Cesarean delivery
- End goal is implementation across broad and diverse range of patients and facilities

Brief Exposure Intervention

- Psychoeducation on Cesarean delivery for antepartum patients, followed by intervention
- Make patients feel more prepared and less anxious for what can be expected day of Cesarean delivery
- BE-OR continuously revised based on feedback from patients and providers



Methods



Lived Experiences and Community Partner Organizations	Hospital Leadership, Administrators, and Clinicians
Doula/Childbirth Educators	Frontline Providers and Staff
Lactation Support Specialists	Mental Health Specialists
Birthing People	Hospital Administrators
Parenting Partners	Revenue Cycle Managers
Peer Support Networks	Legal and Risk Management

4 Work Groups

- 1-hour long, 5-minute presentation on BE-OR followed by structured discussion
- Each has 2 individuals with lived experiences and 2 individuals with professional experiences
- Responses are recorded, transcribed, and qualitatively coded

4 User-Testing Designs

- Take 1 pregnant individual on antepartum unit at UCH through BE-OR (1 hour long)
- Followed by 15-minute interview with structured questions
- Responses are recorded, transcribed, and qualitatively coded

Patient Demographics

	Lived Experiences (N=9)	Professional Experiences (N=8)
Personal Identification / Patient Specialization	• LGBTQ+ community (3) • Experiencing non-medical factors that affect health (5) • Rural/frontier communities (3) • Complicated birthing experience (6) • Adolescent parents (2)	• LGBTQ+ community (4) • Experiencing non-medical factors that affect health (7) • Rural/frontier communities (4) • Complicated birthing experience (6) • High-risk pregnancies / newborns (8) • Adolescent parents (5) • Fertility challenges (6) • History of trauma (1)
Gender	• Female (5) • Not reported (4)	• Female (8)
Race	• Black / African American (2) • White (7)	• Black / African American (1) • White (6) • More than one race (1)
Ethnicity	• Hispanic/Latino (2) • Not Hispanic/Latino (7)	• Not Hispanic/Latino (8)

Results

What information do hospitals want when deciding whether to adopt this intervention?	What affects whether this can be implemented?	How does this help the patient/partner?	How do we introduce this to patients so they want to receive the intervention?	What do we need to change in the intervention to make it more helpful to patients?	Who should implement this and how should they be trained?	What do we need to add or change to the protocol to make it safe?
Feasible in workflows	Room and OR availability	Preparedness, reduced uncertainty, empowerment, cognitive framework	Be explicit in what this involves	Handouts for review before/after intervention	Person trained in mental health	OR availability and turnover (no contamination)
Data for patient outcomes (PMATS, opioid use, patient experience)	Staffing	Affects partner's experience and parent-partner relationship	Acknowledgement for those with medical phobias / previous trauma	Passing along patient preferences to medical team	Dedicated team who uses trauma-informed care	Safety checks for mental health
Data to make hospital look good	Incorporating into existing workflows	Reframes birthing experience	Establish trust using trauma-informed care	Give language to communicate anxiety during intervention and coping strategies		Plan for medical/mental health issues during intervention

Participant Quotes

"For me, anything that causes me anxiety a lot of times it's the unknown. So, I really love that this includes desensitization to numerous senses and being able to do that weeks ahead of a scheduled birth so people can use imagery and really have an idea in their mind of what this very anxiety-provoking situation could look like."

"If we can take one factor out of it for these people and birthing humans that we can just reduce that so they can focus on their baby, they can focus on their healing. There's a lot of aspects to our care, and I think just reducing one of these single factors, which is multifaceted and very vast and challenging, will benefit our patients tenfold."

"For me, it would help reduce trauma symptoms in the postpartum time. Because it really is trauma-informed to give people choice, awareness, instructions ahead of time of what will happen."

"Giving a birthing person some control of a situation that you don't necessarily have a lot of control over, I think that I would feel so much better knowing that I had done everything I could do to prepare myself, and that although I didn't have control of exactly how things would go, I had control to attend this intervention. So postpartum, I think I would feel more empowered that I was able to do something to help myself through pregnancy and delivery, and then postpartum feel like I was a little more in control of that."

Discussion

- Both lived experience and professional experience individuals found the BE-OR very helpful in feeling more prepared, decreasing anxiety, and gaining more control over the birthing experience
- Participant feedback indicated that staffing, OR contamination, and incorporation into existing workflows were the major obstacles for implementation
- Utilization of trauma-informed care was highlighted as one of the most vital aspects of providing patients with the intervention
- Participants underlined the importance of having a dedicated team that is trained in mental health to implement the intervention
- This study is a 3-year long project, so the data gathered from the 4 work groups and 4 user-testing designs will be implemented into the intervention during the next portion of the study (Cycle 2)

Acknowledgements

- Dr. Ron Li-Liaw, Chair of PMHI
- Dr. Neill Epperson, Chair of Department of Psychiatry
- Dr. Dominic Martinez, Dir. Office of Inclusion and Outreach, CCTSI
- Dr. Allison Dempsey, Professor, Divisions of Adult Psychiatry and Child and Adolescent Mental Health
- Yunliang (Lily) Luo, Director oof PURPLE Program
- Shanna Trott, Director of PURPLE Program
- Dr. Merlin Ariefdjohan, PURPLE Program Founder and Faculty Advisor
- Study participants and families
- Connections Program

Contact: Cassidy.Calderon@UCDenver.edu