



THE UNIVERSITY *of* NORTH TEXAS  
HEALTH SCIENCE CENTER *at* FORT WORTH



# Postnatal Education through a Health Literacy Lens

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# Postnatal Education through a Health Literacy Lens

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**Few studies have evaluated the effect of health literacy on obstetric outcomes.**

- Information is not consistent or based on adult learning theory resulting in a gap between presented and received.
- Doesn't account for culture, inadequate sleep, physical and emotional changes, medications, and low health literacy.
- Women may not understand if symptoms after birth are normal, or abnormal requiring medical attention.
- **Hypothesis:** Improved health literacy and cultural sensitivity for underserved and disparate populations will help reduce maternal morbidity and mortality.

# AIM 1. Assess current readability, understandability and cultural sensitivity of information regarding postnatal care.



Materials Reviewed	Readability Score	PEMAT Score	CLAS Score	Source
JPS PowerPoint- Postpartum	6.7	38%-40%	Developing	John Peter Smith Hospital
Baylor Scott and White Postpartum Education	8.8	38%-20%	Not Present	Baylor Scott and White computer-generated postpartum education
Baylor Scott and White Health Customized Communications	7.2	81%-100%	Developing	A New Beginning Book: Dianne Moran, RN, LCCE, ICD and G. Byron Kallam, MD, FACOG
The Woman's Hospital of Texas-Postpartum Discharge Guide	10.4	46%-60%	Not Present	Postpartum Discharge Guide <a href="https://womanshospital.com/dotAsset/4ce953d1-ec8f-4f3f-bcf8-2f88cfa3978d.pdf">https://womanshospital.com/dotAsset/4ce953d1-ec8f-4f3f-bcf8-2f88cfa3978d.pdf</a>
Save Your Life: Get Care for these POST-BIRTH Warning Signs	9.6	69% -50%	Developing	AWOHNN Postpartum Education Materials <a href="https://cdn.ymaws.com/www.awhonn.org/resource/resmgr/files/Post-Birth_Warning_signs_160.pdf">https://cdn.ymaws.com/www.awhonn.org/resource/resmgr/files/Post-Birth_Warning_signs_160.pdf</a>
Preeclampsia Foundation	11.0	71%-40%	Developing	Postpartum Preeclampsia <a href="https://www.preeclampsia.org/stillatrisk">https://www.preeclampsia.org/stillatrisk</a>
World Health Organization Maternal Sepsis	7.2	67%-20%	Not Present	Global Maternal and Neonatal Sepsis Initiative <a href="http://srhr.org/sepsis/wp-content/uploads/2017/08/WHO_Infographic-Maternal-sepsis-overview-EN-A4-WEB.pdf">http://srhr.org/sepsis/wp-content/uploads/2017/08/WHO_Infographic-Maternal-sepsis-overview-EN-A4-WEB.pdf</a>
Postpartum Hemorrhage widiHow by Carrie Noriega, MD Obstetrician & Gynecologist	8.1	80%-80%	Not Present	How to Know if It's Postpartum Bleeding or a Period <a href="https://www.wikihow.com/Know-if-It%27s-Postpartum-Bleeding-or-a-Period">https://www.wikihow.com/Know-if-It%27s-Postpartum-Bleeding-or-a-Period</a>
NIH Mental Health Postpartum Depression	9.8	64%-60%	Not Present	NIH Mental Health - Postpartum Depression Facts <a href="https://www.nimh.nih.gov/health/publications/postpartum-depression-facts/index.shtml">https://www.nimh.nih.gov/health/publications/postpartum-depression-facts/index.shtml</a>
American Heart Association Peripartum Cardiomyopathy	9.1	67%-20%	Not Present	AHA Peripartum Cardiomyopathy <a href="https://www.heart.org/en/health-topics/cardiomyopathy/what-is-cardiomyopathy-in-adults/peripartum-cardiomyopathy-ppcm">https://www.heart.org/en/health-topics/cardiomyopathy/what-is-cardiomyopathy-in-adults/peripartum-cardiomyopathy-ppcm</a>
TCC AVS Instructions	6.7	14% - 43%	Not Present	Tyler Circle of Care computer-generated postpartum education.

**Targets:**

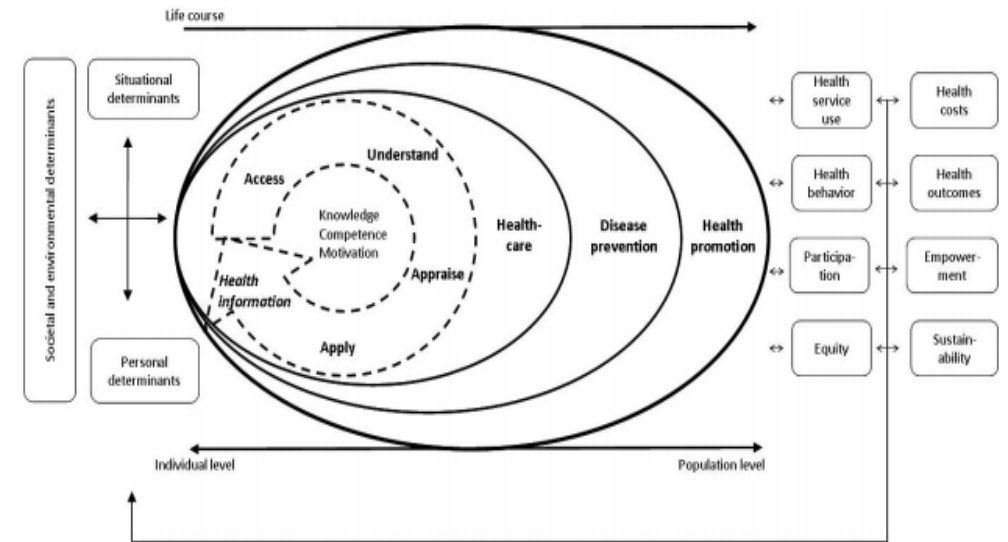
**Readability:  
Below 6<sup>th</sup> grade**

**PEMAT:  
80% Understandability  
80% Usability**

**CLAS: Present**

## AIM 2. Determine women's access, understanding, appraisal and application of postnatal care to evaluate current postpartum education.

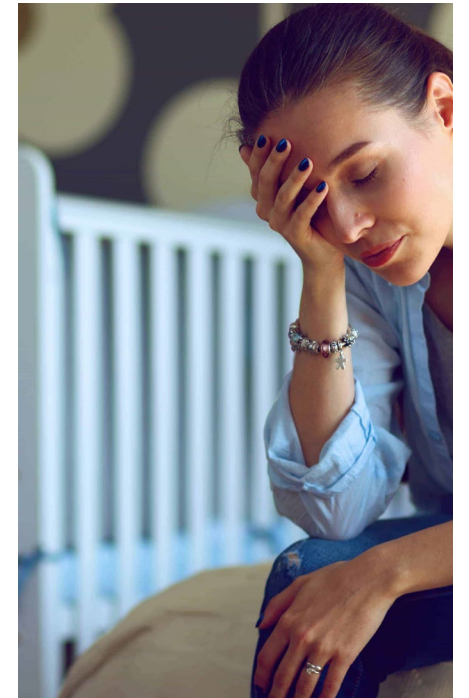
1. Conduct one-on-one interviews with both urban & rural patients engaging collaborative partners to assist with recruitment.
2. Conduct focus groups with both urban & rural patients to ensure information incorporated meets needs of new moms as assimilated from interviews.
3. Women's perceptions of information from their providers will be evaluated using the integrated model of health literacy (Sorensen et al., 2012).



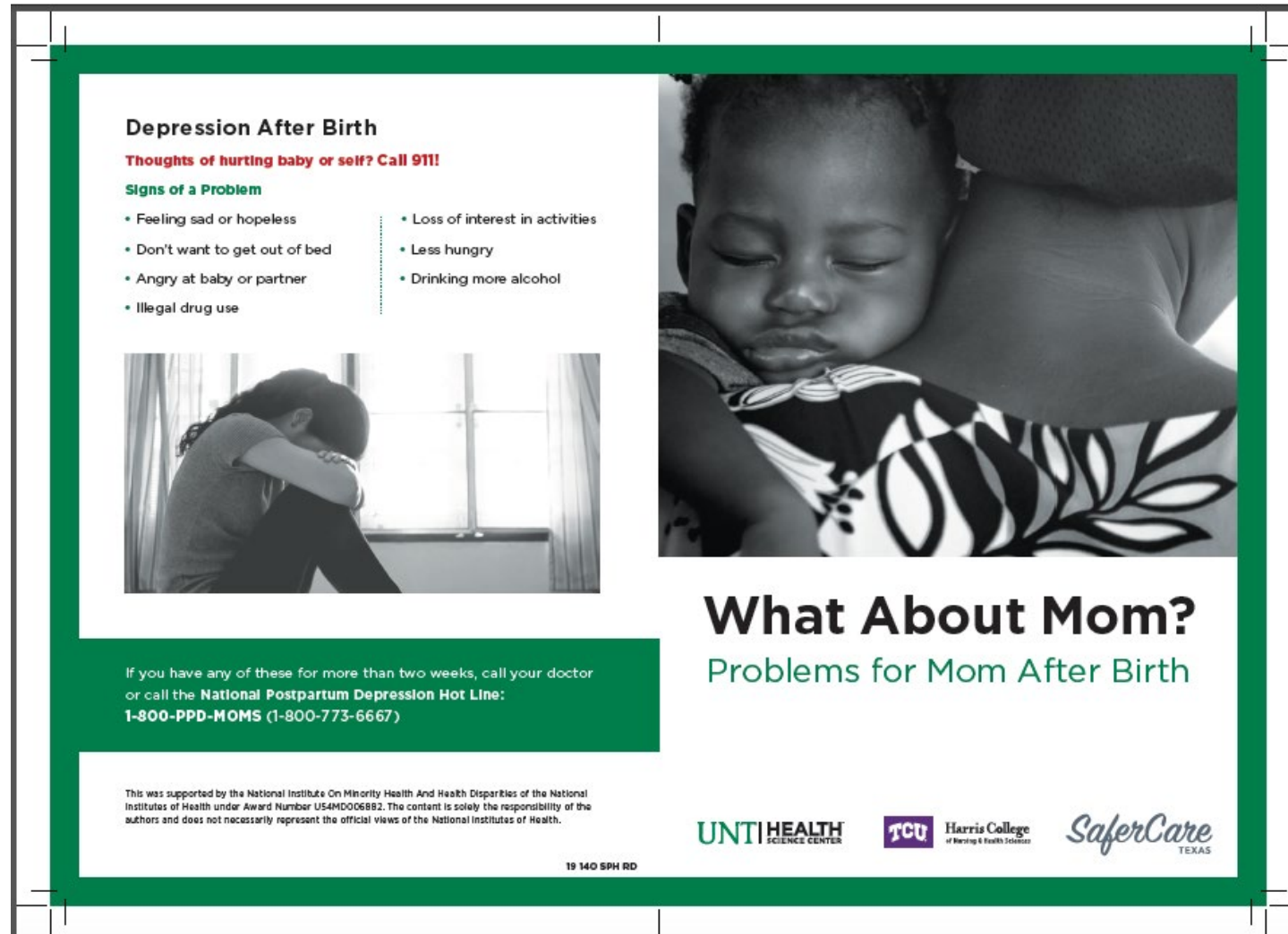
## One-on-One Interview Findings:

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- No difference in African American vs. all other races or urban vs. rural
- Most providers talked about signs of infection or heavy bleeding
- Did not address other emergent/urgent issues such as severe headaches with blurred vision or calf pain, redness, or swelling
- Post-partum depression has been a recurring topic with cultural implications
- Warrants addressing with more comprehensive, health literate information that is easy to use





# Brochure:



**Depression After Birth**  
**Thoughts of hurting baby or self? Call 911!**  
**Signs of a Problem**

- Feeling sad or hopeless
- Don't want to get out of bed
- Angry at baby or partner
- Illegal drug use
- Loss of interest in activities
- Less hungry
- Drinking more alcohol



**What About Mom?**  
Problems for Mom After Birth

If you have any of these for more than two weeks, call your doctor or call the **National Postpartum Depression Hot Line: 1-800-PPD-MOMS (1-800-773-6667)**

This was supported by the National Institute On Minority Health And Health Disparities of the National Institutes of Health under Award Number US4MD006882. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

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UNT HEALTH SCIENCE CENTER | TCU Harris College of Nursing & Health Sciences | SaferCare TEXAS

**Developed with:  
TCU Nursing Students**

**Tested by:  
Community Health  
Workers, OB Nurses,  
Public Health MHA &  
MPH & TCU Journalism  
Students**

**Focus Groups: Moms**



# Inside Brochure:

## Infection After Birth

### Signs of a Problem

- Extra sweaty
- Dizziness or confusion
- Temperature over 100.4
- Fast heart beat
- Breast is red, warm and painful
- Pain or redness at C-section scar
- More blood on the pad than before
- Blood or liquid from vagina smells bad



If you are having any of these symptoms,  
Call your doctor. Can't reach doctor? **Seek urgent care or Call 911!**  
(Tell them you recently had a baby.)

## Heart Problems After Birth

### Signs of a Problem

- Extra sweaty
- Extra tired
- Jaw pain
- Tight chest
- Problems breathing
- Sick to stomach or throwing up
- Arm pain
- Leg is red, warm or swollen



If you are having any of these symptoms,  
**Call 911!** (Tell them you recently had a baby.)

## High Blood Pressure After Birth

### Signs of a Problem

- Headache
- Seeing spots
- Swelling in face
- Problems breathing
- Stomach pain
- Sick to stomach or throwing up
- Swelling in hands



If you are having any of these symptoms,  
**Call 911!** (Tell them you recently had a baby.)

## Blood Loss After Birth

### Signs of a Problem

- Headache
- Dizzy
- Fast heart beat

- Sweaty
- Extra sleepy
- Chills
- Heavy bleeding from vagina with egg-sized clots



Normal blood in 1 hour



Too much blood in 1 hour

If you are having any of these symptoms,  
**Call 911!** (Tell them you recently had a baby.)



**App:**  
Developed  
with TCU  
Computer  
Science  
Students



Infection

Heart Problems

Partner Support

## Inside App Icons:



## Partner Support

### What you can do to support:

- Watch her for signs of serious physical health problems.
- Encourage her to talk with her provider.
  - Answer the phone. Take a message.
  - Throw in a load of laundry. Assist with other daily tasks.
  - Order take-out for dinner or cook.
  - Accompany her to doctor's appointments.
  - Write down the concerns and questions you both have for doctor or therapist.
  - Spend time each day just being with her... no distractions or talk about responsibilities.

Call the postpartum  
depression help line:  
1-800-944-4773

# Cultural Competency Training:

**3 States:  
Legislated Training**

**11 States: State-Sponsored  
Activation**

**20 States: Fully Adopted**

**Improved delivery of  
culturally appropriate and  
linguistically diverse care.**

**State of Texas:  
1 Hour Ethics CME**



# Dissemination:

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- **Speaking**
  - 11 poster sessions – 2<sup>nd</sup> Place at ACOG
  - 4 oral conference presentations
  - 6 media/blog placements
- **IPE** – Won Community Empowerment Award – USPHS Interprofessional Education Collaborative
- **Publications**
  - **Aim 1:** What About Mom? Health Literacy and Maternal Mortality. Published.
  - **Aim 2:** Postpartum Education and Health Literacy: New Mom’s Perspectives. Under Review.
- **Tool Placement** - SaferCare Texas Website and Texas Center for Health Disparities
- **THA & DSHS AIM Bundles** – Statewide uptake through the Maternal Mortality Task Force, DSHS and the Texas Hospital Association. Want more functionality with iOS and Android compatibility.
- **National Health Literacy Listserve** - Distribution
- **Association for Teachers of Maternal Child Health** - Website
- **Cultural Competency and Humility Training** – **Incedo** developed for providers on CLAS Standards.

# Future Research: What About Mom? Teen

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**Age serves as a strong indicator of a woman's risk for complication and death resulting from pregnancy.**

- Women less than 20 years of age from 2005-2010 to 2011-2016 showed a statistically significant increase in maternal mortality rate from 6.0 to 13.6 per 100,000 live births, a 126.4% increase.
- Additionally, racial and ethnic disparities in maternal mortality are further confounded by teen pregnancy.
- **There exists a paucity of literature on availability and effect of health literate, postpartum symptom education Apps for teens on their obstetric outcomes.**
- One for-profit postpartum App called Mahmee is costly to use, possibly limiting its use for underinsured or uninsured populations with limited access to healthcare.

# Future Research: What About Mom? Teen



**Hypothesis:** Given the gap in research available on the use of Apps to deliver postpartum instruction to teen mothers, we hypothesize that the What About Mom? App fills this gap for postpartum teens ages 16-19 years old.

**Aim 1:** Assess teens' perception of the quality and usability of the What About Mom? App to determine if and how to adapt the app for the teen population.

**Aim 2:** Assess teen's health literacy and e-health literacy. Offer WebLitLegit to Community Partners.

**Collaborate with community partners including;** Texans Can Academy, Healthy Start, Tyler Family Circle of Care and two Tarrant County MHMR programs, Family Connects and Healthy Steps.

**Significance.** The long-term goal of this project is to increase healthcare engagement using an App targeting teen's postpartum health concerns to reduce age, racial and ethnic disparities in teen maternal morbidities and mortality.



**Reducing maternal mortality and health disparities is a local, state and national priority.**

**Improved functionality and accessibility of this innovative, health literate App, empowers all moms to recognize emergent symptoms and take the needed action to potentially save their own lives.**



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