

Introduction:

- According to the CDC Morbidity and Mortality Weekly Report, “approximately 700 women die annually in the US from pregnancy related complications.”

PICO: Among undergraduate BSN students, does supplemental education model on critical assessment of peripartum risk factors compared to no additional education model improve knowledge and understanding of the peripartum assessment requirements of an emergency nature?



Literature Search:

- Databases:**
- Cinahl
 - Pubmed
 - Ebscohost
- Search parameters:**
- Peer-reviewed articles
 - Published within the past 7 years (2014-2021)
- Keywords:**
- Maternal mortality
 - Maternal morbidity
 - Preventable deaths
 - Risk factors
 - Assessment
 - Postpartum

Current Evidence:

- Maternal Mortality**
- Maternal deaths in the US have increased in the last several decades, compared with other similar high-income countries where they have decreased steadily (Darney et al, 2020)
 - The highest percentage of maternal deaths occur during the postpartum period when compared to the antepartum or intrapartum periods (Mogos et al, 2020)
 - In the inpatient setting, the proportion of women who die during pregnancy-related hospitalization is higher among women who are older (age > 35 years), non-Hispanic African Americans, users of alcohol and abused drugs, and from the southern region of the United States (Mogos et al, 2020)
- Nursing Education**
- Survey of 372 nurses who work with women in the postpartum period (Suplee, P. D., Bingham, D., & Kleppel, L., 2017)
 - 54% indicated knowledge of rising maternal mortality rates in the US
 - 67% indicated that they spent less than 10 minutes with patients focusing on potential warning signs

Education Plan:

Place: Clinical site for current OB nursing students

Presented to: Junior Nursing Students

Overall Purpose: Educate junior nursing students on the common causes of maternal mortality and morbidity in the United States, populations most at risk, and assessment points that are critical to collect in an emergency

Objectives:

1. Define maternal mortality and morbidity (direct/indirect deaths and late) and identify populations in the US most at risk
2. Identify common causes of maternal mortality and morbidity and the time frame these complications can take place
3. Describe assessment points for peripartum risk factors that are critical to collect in an emergency

Implementation and Feedback:

Narrated slideshow presentation including a video and an interactive case study

- Distributed to clinical instructors to present and work on with their clinical groups (Junior- level OB nursing students)
- Clinical instructors encouraged to pause for discussion and to work through the case study as a group

Acronym to be used as a memory and education tool to help students remember critical assessment data to collect.

Pre- and post- test containing the same five questions to assess students’ knowledge before and after attending the education session

Lessons Learned:

- Results:**
- A higher percentage of participants answered correctly on the post-test when compared with the pre-test on all questions except for question two*
 - Results were skewed as there were 39 participants for the pre-test, but only 18 participants for the post-test.
- *one respondent answered incorrectly on both the pre and post tests on question 2*
- Recommendations:**
- Further Research
 - More surveys to determine nurses’ knowledge and understanding of the following topics
 - Maternal Mortality and Morbidity statistics/scope of problem
 - Postpartum warning signs
 - Racial and ethnic disparities
 - Implicit bias
 - Research into nursing programs and nurse residency programs to determine what education on these topics is currently being provided to students and new nurses
 - Changes to education Session
 - Larger sample size and in-person delivery

References:

Darney, D. D., Nakamura-Pereira, M., Regan, L., Serur, F., & Thapa, K. (2020). Maternal Mortality the the United States Compared with Ethiopia, Nepal, Brazil, and the United Kingdom: Contrasts in Reproductive Health Policies. *Obstetrics & Gynecology*, 135(6), 1362–1366. <https://doi.org/10.1097/AOG.0000000000003870>

Mogos, Mulubrhan, Liese, Kylea, Thornton, Patrick, Manuck, Tracy, O'Brien, William & McFarlin, Barbara. (2020). Inpatient Maternal Mortality in the United States, 2002-2014. *Nursing Research*, 69, 42-50. <https://doi.org/10.1097/NNR.0000000000000397>

Suplee, P. D., Bingham, D., & Kleppel, L. (2017). Nurses' Knowledge and Teaching of Possible Postpartum Complications. *MCN, the American Journal of Maternal Child Nursing*, 42(6), 338-344.

