Reducing Postpartum Hemorrhage in a Nurse-Midwifery Practice

SHARON SHIN, MSN, CNM, FNP-C
ADVISOR: KIMBERLY MCILTROT, DNP, CPNP, CWOCN
ORGANIZATIONAL MENTOR: JESSICA ANDERSON, DNP, CNM, WHNP-BC, FACNM
CENTER FOR MIDWIFERY, UNIVERSITY OF COLORADO HOSPITAL

Background and Significance
- Postpartum hemorrhage (PPH) is heavy bleeding that occurs after childbirth (March of Dimes, 2015).
- PPH is the fourth leading cause of pregnancy-related deaths in the U.S., and approximately 11.5% of deaths in 2011-2014 were due to PPH (Center for Disease Control and Prevention [CDC], 2019).
- In an academic, faculty midwifery practice in the Southwest region of the U.S., the PPH rate was 5.9% in 2017. This is greater than the national rate of 5% (March of Dimes, 2015).

Purpose and Aims
The purpose of the quality improvement (QI) project aimed to improve the safety and quality of care of the patients by reducing PPH rates, using an in-depth training session to increase knowledge and implementing a standardized protocol at a midwifery practice in the Southwest region of the United States.

1. To reduce the PPH rate by adapting standardized PPH toolkits and clinical practice guidelines to create a specific nurse-midwifery PPH protocol for the faculty, midwifery practice and using the protocol over a 12-week period
2. To increase use of the nurse-midwifery PPH protocol by measuring adherence of certified nurse-midwives (CNMs) over a 12-week period at the faculty, midwifery practice
3. To increase knowledge of certified nurse-midwives on PPH management with the faculty, midwifery practice over a one-day training session.

Methods

Design
- Pretest and posttest

Sample/Setting
- Single unit practice
- Convenience sampling of CNMs (n=6)

Intervention
- PPH protocol; adapted from:
  - California Maternal Quality Cre Collaborative (CMQCC) OB Hemorrhage Toolkit v 2.0
  - American College of Obstetricians and Gynecologists (ACOG) Obstetric Hemorrhage Bundle
  - Association of Women's Health, Obstetric, and Neonatal Nurses (AWHONN) Postpartum Hemorrhage Risk Assessment

Statistical Analysis
- Aim 1: Chi square
- Aim 2: Descriptive statistical test
- Aim 3: Wilcoxon signed rank test

Results

Aim 1: Reduction of PPH
- EBL 500 ml, no significant (p = .400)
- EBL 1000 ml, no significant change (p = .914)

Aim 2: Provider adherence
- 62% provider adherence
- No significant change (p = .096)

Aim 3: Increase provider knowledge
- No significant change (p = .096)

Conclusion
Implementation of the PPH Protocol did not reduce the PPH rate. However, provider adherence and knowledge may impact PPH.