An Evaluation of a Maternal and Child Health Passport for Baltimore City Mothers

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**Background**

- The U.S. has the highest global rates of maternal mortality & morbidity
  - 16.9 deaths per 100,000 live births
  - Increased by 20% since 2000
  - Influenced by inadequate prenatal care utilization
- Prenatal Care = education, screenings, check-ups, etc.
- Sufficient maternal health literacy (MHL) + feelings of empowerment → better health outcomes for mothers & children
- Health passports are booklets used for managing health & learning about relevant topics
  - Improves: health literacy, care management, quality of care, patient-provider communication
  - Limited research on their use in clinical practice

**Methods & Intervention**

**Design:** pre-post study design taking place at a nationally renowned medical institution in Baltimore, Maryland.

**Sample:** 50 pregnant women enrolled in the selected doula program, 10 doulas

**Measurement Tools and Data Analysis**

- Evaluation of MCH Passport by Expert – descriptive statistics
- Doula Knowledge Checklist – descriptive statistics
- Maternal Health Literacy (MaHeLi) Composite Scale – paired t-test
- Parenting Sense of Competence (PSOC) Scale – paired t-test

**Intervention**

- Adapt MCH passport for project and receive feedback from 5 field experts
- Provide virtual training for doulas to ensure competency
- Doulas meet with mothers for at least 30 minutes once weekly for 4 weeks to review the MCH passport. Must complete the entire passport within the 4-week period.

*A learning data set was created for doula & mother data. Evaluations from experts are real.

**Results**

**Aim 1:** Passport Suitability Rated by Field Experts

- 14.8 (SD: 2.39) out of a max score of 18

**Aim 2:** Doula Competency After Training

- 10.9 (SD: 0.57) out of a max score of 13

Scores increased by 12.82 points (SD: 3.26), (p<0.001)

Scores increased by 1.38 points (SD: 3.49), (p<0.05)

**Aim 3:** Mothers’ Average Pre-Post MaHeLi Scores

- On a 60-point scale; higher score → greater MHL

**Aim 4:** Mothers’ Average Pre-Post PSOC Scores

- On a 42-point scale; higher score → greater self-confidence

**Conclusions**

- Field experts rate the MCH Passport as a suitable tool for target population
  - Simple language, graphics, readability, & accurate information
- The MCH passport is an effective tool for improving MHL and self-confidence in Baltimore City mothers
  - MHL scores improved by 12.82 points & self-confidence by 1.38 points → statistically significant
  - Tool can potentially help combat U.S. maternal mortality & morbidity rates
- Further supports benefits of health passports
- More research needed on this tool

**Dissemination**

- The President of the institution’s Community Health Innovations Dept has agreed to print hard copies of the MCH passport and make the tool available at health centers within the network.
- The tool is now part of the dept’s collection of health passports (e.g. men, women, children, general adult).

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**Purpose**

The purpose of this research project is to adapt and implement a maternal and child health (MCH) passport to increase MCH literacy and self-confidence among pregnant women in Baltimore City who are receiving doula care.

**Aims**

1) Adapt a valid Maternal and Child Health (MCH) passport.
2) Hold a virtual in-service for participating doulas to learn the content in the MCH passport and proper use of the tool with clients.
3) Determine if the mothers’ MCH literacy scores change from baseline measurements after using the MCH passport for 4 weeks.
4) Determine if the mothers’ self-confidence scores change from baseline measurements after using the MCH passport for 4 weeks.


