An Association of Health Literacy Levels on Pregnancy Outcomes

Moynihan A, Holmes T, Arluck JC, Hebatullah T, Neal D
Emory University School of Medicine
Department of Gynecology and Obstetrics: Moynihan, Arluck
Walden University
School of Health Sciences: Holmes, Hebatullah, Neal

Introduction

The assessment of maternal-child health is one of the key measuring tools for determining the well-being of any community. Indicators such as infant mortality, gestational age, low birth weight, and early entry into prenatal care have been identified and used throughout the nation to assess maternal-child health (March of Dimes, 2011).

One potential reason for the continuing problem of preterm birth is miscommunication between provider and expectant mother during prenatal care. This miscommunication could be the result of low maternal health literacy levels. Identifying maternal health literacy levels could contribute to improving the health outcomes for mothers and their newborn babies.

Within the past 20 years, health consumer’s level of health literacy has risen as a public health concern in the United States as awareness of the detrimental impact low health literacy can have on the overall health of individuals has increased (Sieber & Keenan, 2005). For some women of reproductive age, a pregnancy is the first contact with a healthcare system. Fergusson (2008). Health literacy has a direct impact on many health outcomes, including pregnancy. How pregnant women obtain, process, and understand basic health information about her pregnancy can depend upon her level of health literacy (Bennett et al., 2006; Endres et al., 2004). The purpose of the quantitative, case control study was to find a correlation in the health literacy levels among postpartum women between the ages of 18 and 35 within the metropolitan Atlanta area and compare their maternal health literacy levels (independent variable) to their pregnancy outcomes (dependent variables), specifically preterm birth as defined by gestational age. The study was designed to address whether there was an association with pregnancy outcome when looking at maternal health literacy levels of recently delivered women.

Methods

- This research was based on the theoretical framework of the Interaction Model of Client Health Behavior.

- Through a convenience sample, we obtained the gestational age of infants born to a cohort of nulliparous women that presented for a singleton delivery at a teaching hospital in Atlanta, Georgia and to identify cases and matched controls.

- REALM health literacy assessment tool

- The data were analyzed in SPSS using logistic regression, with preterm birth as the dependent variable, and health literacy levels as the independent variable.

Results

- Of the 2,169 women that presented for delivery, 856 fit the cohort of a singleton birth. After accounting for the exclusion criteria 647 women were eligible for the study, of which 169 participated (Cases=668, Controls=113). Those with low health literacy levels did not show an association (p-value=0.112) to preterm birth. However, other risk factors of type of insurance (p-value=0.02), type of delivery (p-value=0.04), and level of education (p-value=0.05) were associated with preterm birth.

Conclusions

- This study reinforces the need to reengineer health practitioners to achieve a modest understanding of the principals of health literacy and the health literacy levels of their patients to assist in maternal health improvements. A focus on the development and implementation of educational competencies for clinicians on maternal health literacy would contribute to a positive social change.

- Since the inception of this study, the American College of Obstetricians and Gynecologists (ACOG) has published a Committee Opinion (No. 585) addressing all entities within the health care profession are responsible for recognizing and addressing the problem of low health literacy. There should be a systematic approach in offices, hospitals, clinics, national organization, local health organizations, advocacy organizations, medical schools, residency training programs and CME program.

Literature cited


Acknowledgments

Emory University, Department of Gynecology and Obstetrics: http://www.gynmed.emory.edu

Further information

Please contact the following with additional comments or suggestions:
Dr. Alba Moynihan amoynihan@emory.edu