

# Evaluation of Current Nursing Research About Metabolic Disease for Prenatal Care and Maternal and Infant Outcomes

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**Background and Significance.** Maternal and infant outcomes have not seen the improvements<sup>1</sup>, other conditions such as cardio-vascular diseases, have experienced. Complications and safety events, such as infections and readmissions, are attributable to chronic conditions, such as metabolic disease which includes obesity, diabetes, and hypertension. This study aims to investigate the evidence for best practices.



**Objectives.** The purpose of this study was two-fold: (1) To evaluate nursing research that focuses on metabolic disease, and (2) To identify gaps in evidence that impact perinatal care and outcomes.

## Methods

**Search Strategy.** A PubMed search was conducted. The search terms used included: metabolic disease, obesity, diabetes, and hypertension.

Multiple evaluations took place to determine the number of manuscripts identified that focused on metabolic disease and the specific comorbidities during pregnancy and the perinatal period.

**Timeframe.** Manuscripts were included if they met the search terms and were published between 2009-2019.

**Results.** Over 500,000 manuscripts included the search terms Metabolic Disease, however, less than 40% of the studies addressed pregnancy. Ten percent of the hypertension studies addressed pregnancy. For all study topics, < 1% of the studies focused on the perinatal period (See Table 1).

Table 1. Volume of Studies for Specific Conditions Related to Perinatal Period

PubMed (2009-19)	Metabolic Disease	%	Diabetes	%	Hypertension	%	Obesity	%
Total Number with Search Terms	581,856	100	441,725	100	254,305	100	238,906	100
Within 10 years of Publication Date	437,540	75.2	348,315	78.9	192,184	75.6	194,148	81.3
Condition in Pregnancy	17,212	3.9	18,693	5.4	19,266	10.0	11,104	5.7
Condition in the Perinatal period	454	0.1	478	0.1	352	0.2	331	0.2

## Conclusion and Implications

- Few studies focused on impact of metabolic disease on outcomes for pregnant women and infants
- Little research about metabolic disease during the perinatal period is available to include in evidence based practice
- Research is lacking about the precursors and long-term impact of comorbidities on the health of women and infants
- Studies that influence evidence based practice in care of women and infants need to focus on specific conditions and the combined impact of co-morbidities and metabolic disease

## References

1. Fingar, KF, Hambrick, MM, Heslin, KC, Moore, JE. (2018). Trends and disparities in delivery hospitalizations involving severe maternal morbidity, 2006-2015. HCUP Statistical Brief #243. September 2018. Agency for Healthcare Research and Quality, Rockville, MD.