

Background:

Stress exposure has been consistently recognized as a risk factor for chronic medical conditions. Prenatal stress is known to influence general health outcomes, yet its role in immune-related diseases remains unclear. Prior studies have suggested that it may increase autoimmune disorder risk, but this relationship has not yet been investigated. The present study sought to address these gaps by examining associations between prenatal stress exposure and disease diagnoses across two countries.

Objectives:

- Clarify associations between prenatal stress and autoimmune disease risk to help identify prenatal stress as a clinical risk factor.

Methods:

532 adults in the United States (n=203) and Brazil (n=329) were included in the study. Information about prenatal stressor exposure and physician-diagnosed health conditions, including both general health and autoimmune disorders, was obtained. Demographic information and confounds such as socioeconomic status were controlled for in all analyses.

Results:

Each additional prenatal stressor exposure was linked with a 28% increased risk of an autoimmune disorder diagnosis (RR = 1.28, 95% CI 1.09 to 1.47, $p < .001$). Separate analyses explored associations between each prenatal stressor and health outcome, finding that certain prenatal stressors were found to predict more negative health outcomes than others.

Conclusions:

Prenatal stress exposure was associated with a greater burden of general health and autoimmune disorders in adulthood. These findings offer preliminary evidence linking prenatal stressor exposure to autoimmune disorder risk. Understanding these relationships may inform future research and aid clinicians in recognizing high-risk individuals, supporting earlier clinical monitoring practices and prevention.