

Brain Executive Function During Pregnancy

Investigating the Factors Related to Change



Meet Dr. Nasim Nouri



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Graduated February 2025.

Four years of active engagement in medical research.

Focus on AI in medicine, women's health, and surgical outcomes.



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Understanding Cognitive Impairments

Objective

Identify key factors influencing executive function across different stages of pregnancy.

Background

Previous studies suggest cognitive impairments during pregnancy, but contributing factors are not fully explored.



Study Design & Methodology

Longitudinal Study

Observational study conducted from October 2019 to October 2021.

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Participants

Pregnant women from Imam Hossein and Taleghani Hospitals in Tehran.

Assessment Tool

Adult Self-Report Form of the Behavior Rating Inventory of Executive Function (BRIEF-A).

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Time Points

First trimester, third trimester, and postpartum period.

Key Findings: Executive Function Decline



Participants

210 pregnant women (mean age: 28.70 ± 7.08 years) completed assessments.



GEC Score

Global Executive Composite (GEC) score significantly higher in the third trimester.



Dysfunction Peak

Indicates increased executive dysfunction during the third trimester.

Postpartum Recovery & Influencing Factors

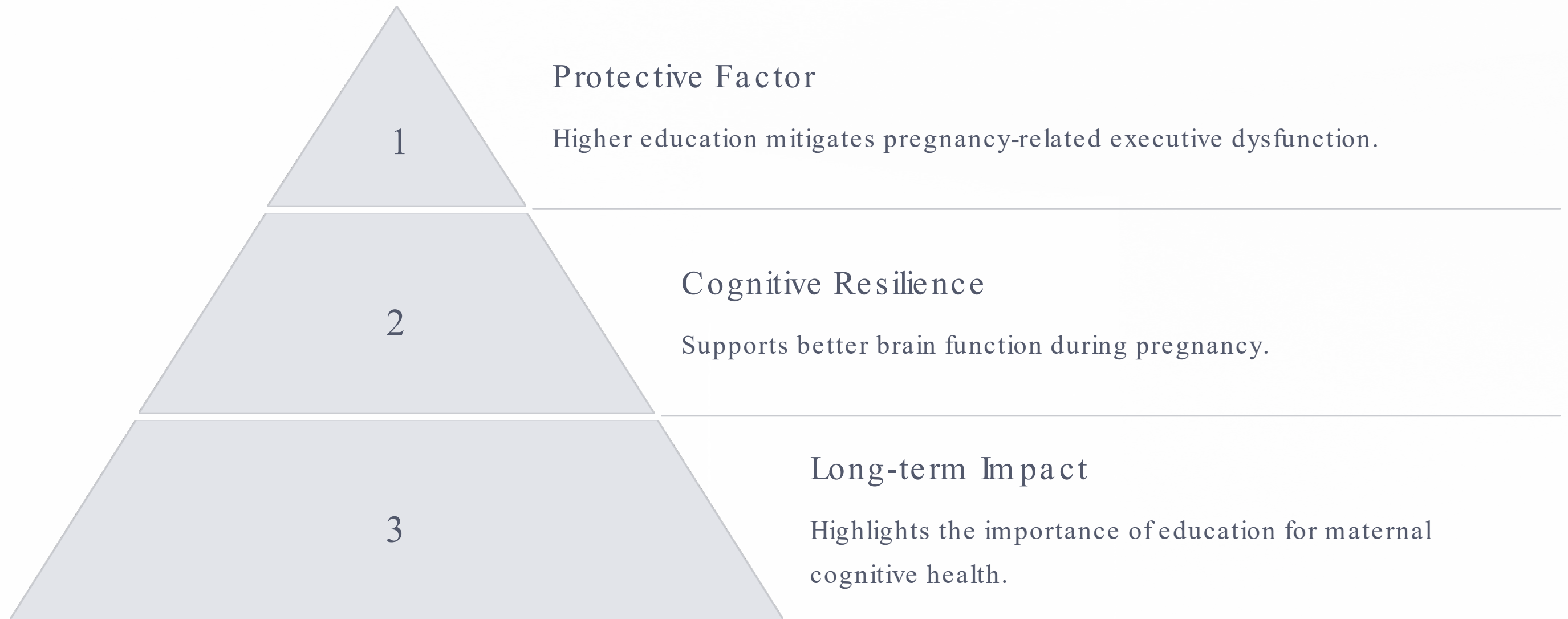
Postpartum scores remained higher than those in the first trimester, indicating partial but not full recovery.

Educational level significantly influenced changes in executive function.

Higher-educated individuals showed better cognitive resilience across pregnancy stages.



The Role of Education





Conclusion: Key Takeaways

1 Decline in Third Trimester

Executive function is most affected during the final stage of pregnancy.

2 Partial Postpartum Recovery

Cognitive function improves after birth but may not return to pre-pregnancy levels immediately.

3 Education as a Buffer

Higher educational attainment acts as a protective factor against cognitive decline.



Dr. Nouri's Contributions



Peer-Reviewed Publications

Contributed to numerous publications in diverse medical fields.



Interdisciplinary Collaboration

Works with teams to improve patient-centered care.



Advancing Global Health

Committed to advancing scientific knowledge with an international outlook.

Contact & Presentation Details

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Wellbeing

