

The Effects of High Maternal BMI on the Risk of Childhood ADHD: A Systematic Review

Megan Ryan, Department of Health Sciences.
Carroll College, Helena, Montana.

Introduction

- ADHD is the most common neurobehavioral childhood disorder.
- The U.S. has seen a 42% increase in diagnosis in the past 8 years. We also spend \$42 million annually on the disorder.
- In the past decade, there had also been an increase in obesity in pregnant women.
- Many studies have found an association between maternal obesity/high BMI and offspring ADHD.
- The purpose of this study is to assess whether there is an association between maternal obesity/high BMI and offspring ADHD.



Figure 1: Child suffering from ADHD

Methods

- Articles were chosen from PubMed and CINAHL.
- Keywords used were Pregnant; women; high BMI; risk; offspring; and ADHD

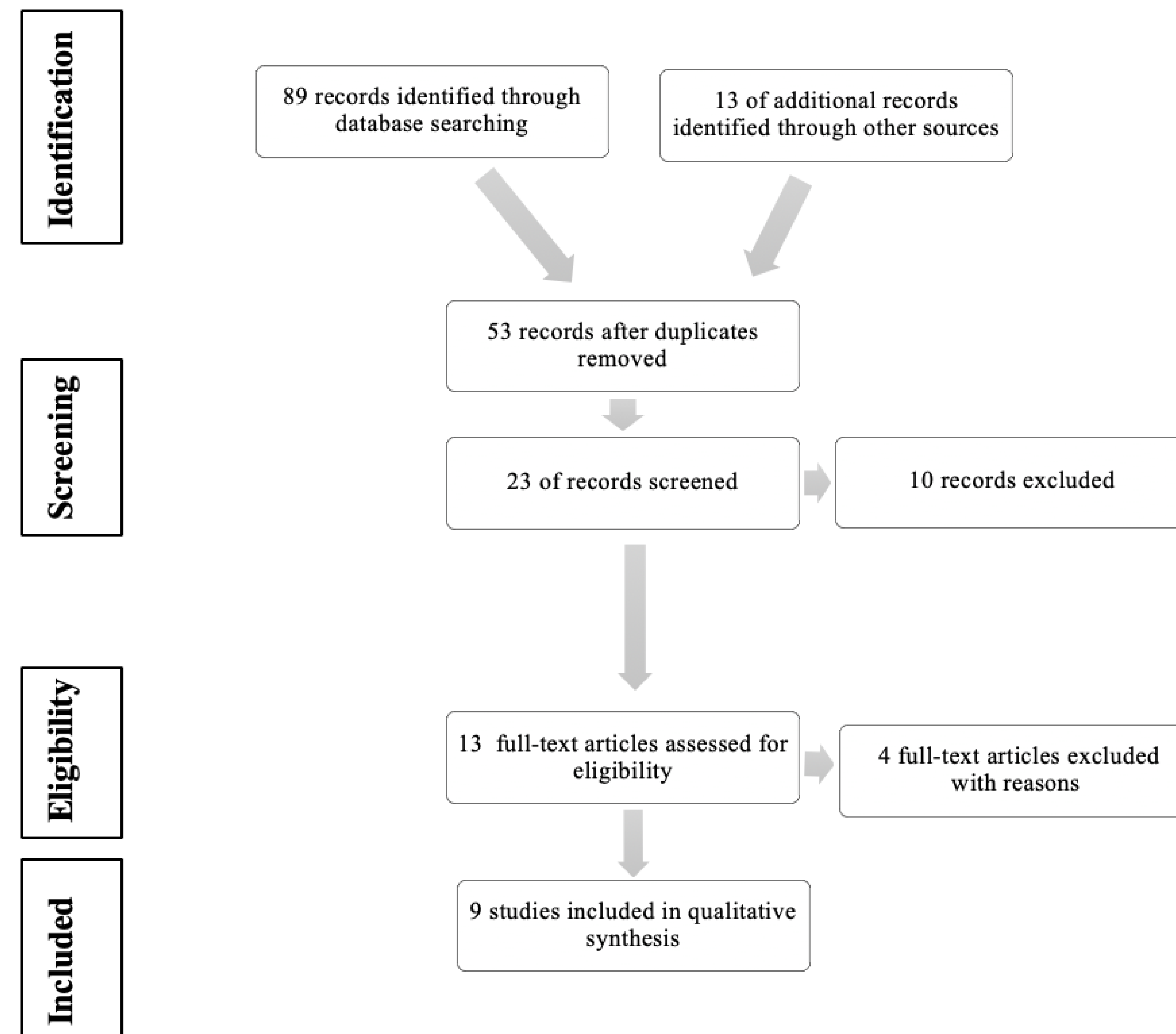


Figure 2: Process for identifying and including articles in systematic review.



Figure 3: An obese, pregnant woman

References

References available upon request.

Results

- Overall results suggest an association between maternal obesity and childhood ADHD.
- Out of the 9 articles reviewed, 7 of them found a statistically significant association.
- The remaining 2 articles found an association, but they were not statistically significant.
- All articles showed an increase of ADHD with an increase of BMI.

Public Health Implications and Recommendations

- While an association is seen, the exact etiology of while it occurs is unknown, so more research would be needed in this area.
- Knowing there is an association could lead to better education of women of child bearing age.
- This could also change prenatal care for overweight and obese women.
- However, more research would be needed to determine if intervention during pregnancy could influence ADHD outcomes.

Acknowledgements

I would like to thank Professor Katie Wagner for her wisdom and guidance throughout the entirety of this research. I would also like to thank the Department of Health Sciences of Carroll College for allowing me this opportunity.