Abstract

The period of prenatal development is a time when a developing brain is very sensitive to outside influences, such as maternal intake of drugs and alcohol. The effects these teratogens can have on postnatal behavior range from non-existent to devastating and irreparable. At birth, specific brain areas are shown to be impacted by certain drugs while in some cases the brain as a whole is just underdeveloped and underweight. Both complications have consequences on the offspring. There have been studies showing the behavioral deficits that are noticeable during infancy to be just as prominent in the child during teenage years. The differences in behavior between control children and those that were exposed to teratogens of this nature will be compared. In my future research I hope to find out why the offspring's brain is not able to repair itself over the years when research tells us that this is the time in which the brain has the most plasticity. I plan to do a meta-analysis on all the available research to find out the answer to this important issue.

References


Appearance of Maternal Alcohol Consumption on Brain Development

This is the difference in size and development of a normal 6 week old infant's brain and the brain of a 6 week old infant that has been exposed to alcohol prenatally and, as a result, has Fetal Alcohol Syndrome.

Acknowledgements

I would like to thank the following individuals for making this research experience possible:

Dr. Wendy Wilkins, Provost and Vice President for Academic Affairs
Dr. Gloria Cox, Dean, Honors College
Dr. Warren Burggren, Dean, College of Arts and Sciences
and especially my mentor,
Dr. Susan Eve, Department of Applied Gerontology, College of Public Affairs and Community Service and Honors College

Potential Behavior Problems

- Attention Deficits
- Hyperactivity
- Impulsivity
- Restlessness
- Distractibility
- Lack of persistence
- Lack of normal sexual behavior
- Issues concerning self-discipline
- Lack of sense of responsibility
- Lower self-confidence
- Strained peer relations
- Demonstration of strong antisocial behavior
- Mental retardation

Facts

- Fetal Alcohol Syndrome, resulting from a mother's consumption of alcohol while pregnant, is on the rise.

- Alcohol is the leading preventable cause of mental retardation in the United States and other industrialized countries.

Image References

http://www.faslink.org/fasmain.htm
http://www.solarnavigator.net/images/baby_in_mothers_womb.jpg
http://www.ehrlichwines.com/images/liquor_shot_1.jpg