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Project Title

Healthy Aging: The effects of Parenthood and APOE Genotype on Cognitive Decline

Project Summary

Parenthood is a life-altering transformation with profound effects on the brain. However, it has mostly been studied in the short-term and in females. In the long term, multiple pregnancies increase risk for Alzheimer's disease (AD) suggesting that fundamental aspects of female physiology and life experiences contribute to the disease. In females, having children is associated with worse memory in middle age but not all studies agree. Factors such as genes (APOE, a risk factor for AD) and female-specific factors (age of menopause, sex of the fetus, hormone therapies) affect cognition. The effects of fatherhood on cognition and disease have received very little attention. Using the CLSA database, we will investigate how parenthood and genes (APOE) along with female-specific factors affect cognition in older females and males. These findings will advance our understanding of how parenthood influences brain cognitive aging and could impact on future treatment of neurodegenerative disease.

Keywords

Sex differences, Parenthood, Cognition, Middle age, Hormone therapy