

## Request #: 512 - PSY - Dissertation

### EXTENDED MATERNAL AND PATERNAL HEREDITARY RISK FOR ALZHEIMER'S DISEASE EXAMINED BY SEX IN A SAMPLE OF COMMUNITY DWELLING OLDER ADULTS IN CACHE COUNTY, UTAH

Elizabeth Vernon [A02182267] - Doc Student (w/Dr. JoAnn Tschanz)

January 05, 2021

#### **Background**

The current project examines sex differences in the associations between extended familial maternal and paternal family history of AD and interactions with parental longevity and cardiovascular risk factors and conditions within a single population-based study, the Cache County Study on Memory in Aging (CCSMA). The Cache County Study has conducted dementia surveillance in a sample of 5,092 older adults for up to 12 years. Linkage with demographic and health databases through the Utah Population Database (UPDB) allowed access to extended family history and health data. The research questions/aims are:

#### **Sample**

Will be using extent data (Cache County Memory Study) Originally 5092 individuals enrolled but some will be excluded based on the inclusion criteria.

#### **Hypothesis**

1.) Does extended (2-generations) family history of dementia and risk for AD vary by the sex of the proband? 2.) Does maternal or paternal family history of dementia differentially affect risk for AD and does this differ by sex of the proband? 3.) Is parental (maternal and/or paternal) longevity associated with risk for developing AD and does this risk vary by sex of the proband? 4.) As an exploratory aim, examine whether cardiovascular risk factors and conditions are associated with maternal or paternal family history of dementia and risk of AD in the proband, and if this association varies by sex.

We hypothesize there will be sex differences in the association between family history and risk for AD. Additionally, we hypothesize that the association maybe greater with maternal familial history than paternal.

#### **Progress**

Completed part of data wrangling. I am wanting to clarify the statistical methods (binary logistic regression versus Cox regression).

#### **Request**

Planning analyses

#### **Timeline**

Complete data analyses by end of February

Write up the results in March Submit dissertation to the committee in April