

# Applying Sparse Partial Least Squares Regression (SPLSR) To Explore Associations Between Cortical Thickness and Subvolume Using RANN Data

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## Descriptive Statistics: Gender and Education

Gender	Count
Female	99
Male	74
Total	173

Years of Education	
Min.	12
1st Qu.	14
Median	16
Mean	16
3rd Qu.	18
Max.	22

## Age Summary

Baseline Age	
Min.	20.00
1st Qu.	51.00
Median	64.00
Mean	55.55
3rd Qu.	67.00
Max.	71.00

RANN data was used to explore associations between cortical thickness and subvolume measures. One hundred bootstrapped sets were generated, on which partial least squares regression was applied with subvolume as the outcome and cortical thickness as the predictor, using 5-fold cross validation. The optimal number of components was calculated and the beta coefficients were averaged across all 100 datasets. The following heat map summarizes the significant associations.

