

# ResultsSect

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## Descriptives

### Participants

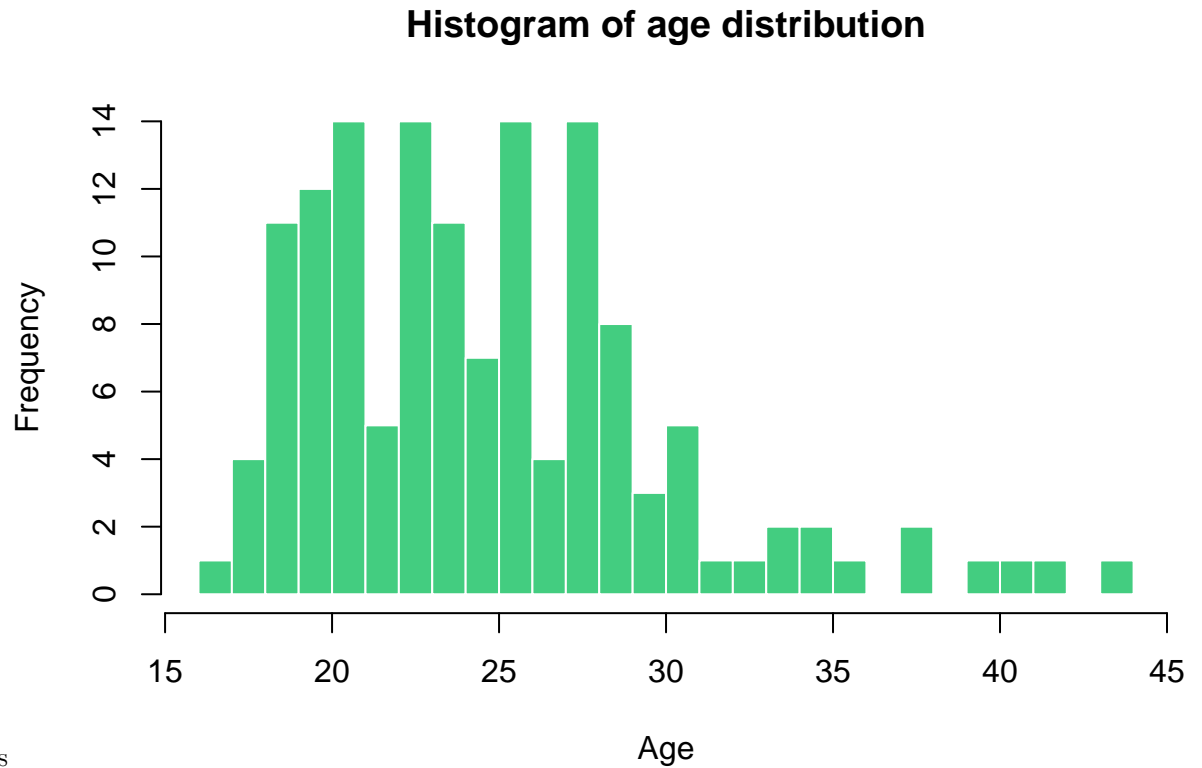
Thirty CW (mean age = 25.80 years, SD = 3.84), 30 CM (mean age = 26.03 years, SD = 5.26), 40 TM (mean age = 24.38 years, SD = 5.35), and 41 TW (mean age = 24.88 years, SD = 6.20) participated in the study. One TW participant was excluded because no results could be extracted from FreeSurfer. Demographics can be observed in Table 1. The sample did not differ significantly in age [ $F(3, 136) = 0.74$ ,  $p = 0.528$ ].

**Table with demographic information**

| vars   |            |                 |                  |                  |                 |
|--------|------------|-----------------|------------------|------------------|-----------------|
| groupn | Group      | CW              | CM               | TM               | TW              |
| ager   | Age        | $25.8 \pm 3.84$ | $26.03 \pm 5.26$ | $24.38 \pm 5.35$ | $24.88 \pm 6.2$ |
| SESr   | SES        | $2.3 \pm 0.47$  | $2.23 \pm 0.57$  | $2 \pm 0.6$      | $1.98 \pm 0.7$  |
| Edr    | Education  | $3.57 \pm 0.9$  | $3.43 \pm 0.82$  | $3.15 \pm 0.74$  | $2.95 \pm 0.81$ |
| Hdr    | Handedness | $1.13 \pm 0.35$ | $1.07 \pm 0.25$  | $1.07 \pm 0.27$  | $1.05 \pm 0.22$ |

### Code for demographics

The code can be found in markdown version of this file, it is not printed on the PDF



Plot with ages

## Results

### Repeated measures

Questions: do we want a correlation between regions of the same participant?

Everything for volume is computed here:

### Post-hoc tests

In the tables the results for the model with and without covariates are displayed.

|                            | CW vs CM | CW vs TM | CW vs TW | CM vs TM | CM vs TW | TM vs TW |
|----------------------------|----------|----------|----------|----------|----------|----------|
| L_fusiform_volume          | 0.001    | 0.003    | 0.419    | 0        | 0.143    | 0        |
| L_inferiorparietal_volume  | 0.006    | 0.004    | 1        | 0        | 0.43     | 0        |
| L_postcentral_volume       | 0        | 1        | 0.032    | 0        | 0.636    | 0.002    |
| L_precentral_volume        | 0.027    | 0.963    | 0.229    | 0.001    | 1        | 0.006    |
| L_frontalpole_volume       | 0.871    | 1        | 0.001    | 0.562    | 0.31     | 0        |
| R_fusiform_volume          | 0        | 0        | 0.811    | 0        | 0.204    | 0        |
| R_inferiorparietal_volume  | 0.022    | 0.037    | 0.208    | 0        | 1        | 0        |
| R_postcentral_volume       | 0.308    | 0.731    | 0.132    | 0.001    | 1        | 0        |
| R_precentral_volume        | 0        | 1        | 0        | 0        | 1        | 0        |
| R_frontalpole_volume       | 0.005    | 0.674    | 1        | 0        | 0.038    | 0.102    |
| LeftCerebellumWhiteMatter  | 0        | 0.402    | 1        | 0        | 0        | 0.184    |
| LeftCerebellumCortex       | 0        | 0.085    | 0        | 0        | 1        | 0        |
| RightCerebellumWhiteMatter | 0        | 0.318    | 1        | 0        | 0.001    | 0.026    |
| RightCerebellumCortex      | 0        | 0.02     | 0.001    | 0        | 0.497    | 0        |
| LeftThalamusProper         | 0        | 0.002    | 0.733    | 0        | 0.003    | 0        |

|                     |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|
| LeftCaudate         | 0     | 1     | 0.002 | 0     | 1     | 0.002 |
| LeftPutamen         | 0.004 | 1     | 0.023 | 0.002 | 1     | 0.009 |
| LeftAccumbensarea   | NA    | NA    | NA    | NA    | NA    | NA    |
| RightThalamusProper | 0.01  | 0     | 1     | 0     | 0.104 | 0     |
| RightCaudate        | 0     | 1     | 0.007 | 0     | 0.703 | 0.009 |
| RightPutamen        | 0     | 0.979 | 0     | 0     | 0.457 | 0     |
| RightAccumbensarea  | NA    | NA    | NA    | NA    | NA    | NA    |

|                            | CW vs CM | CW vs TM | CW vs TW | CM vs TM | CM vs TW | TM vs TW |
|----------------------------|----------|----------|----------|----------|----------|----------|
| L_fusiform_volume          | 0.001    | 0.003    | 0.419    | 0        | 0.143    | 0        |
| L_inferiorparietal_volume  | 0.006    | 0.004    | 1        | 0        | 0.43     | 0        |
| L_postcentral_volume       | 0        | 1        | 0.032    | 0        | 0.636    | 0.002    |
| L_precentral_volume        | 0.027    | 0.963    | 0.229    | 0.001    | 1        | 0.006    |
| L_frontalpole_volume       | 0.871    | 1        | 0.001    | 0.562    | 0.31     | 0        |
| R_fusiform_volume          | 0        | 0        | 0.811    | 0        | 0.204    | 0        |
| R_inferiorparietal_volume  | 0.022    | 0.037    | 0.208    | 0        | 1        | 0        |
| R_postcentral_volume       | 0.308    | 0.731    | 0.132    | 0.001    | 1        | 0        |
| R_precentral_volume        | 0        | 1        | 0        | 0        | 1        | 0        |
| R_frontalpole_volume       | 0.005    | 0.674    | 1        | 0        | 0.038    | 0.102    |
| LeftCerebellumWhiteMatter  | 0        | 0.402    | 1        | 0        | 0        | 0.184    |
| LeftCerebellumCortex       | 0        | 0.085    | 0        | 0        | 1        | 0        |
| RightCerebellumWhiteMatter | 0        | 0.318    | 1        | 0        | 0.001    | 0.026    |
| RightCerebellumCortex      | 0        | 0.02     | 0.001    | 0        | 0.497    | 0        |
| LeftThalamusProper         | 0        | 0.002    | 0.733    | 0        | 0.003    | 0        |
| LeftCaudate                | 0        | 1        | 0.002    | 0        | 1        | 0.002    |
| LeftPutamen                | 0.004    | 1        | 0.023    | 0.002    | 1        | 0.009    |
| LeftAccumbensarea          | NA       | NA       | NA       | NA       | NA       | NA       |
| RightThalamusProper        | 0.01     | 0        | 1        | 0        | 0.104    | 0        |
| RightCaudate               | 0        | 1        | 0.007    | 0        | 0.703    | 0.009    |
| RightPutamen               | 0        | 0.979    | 0        | 0        | 0.457    | 0        |
| RightAccumbensarea         | NA       | NA       | NA       | NA       | NA       | NA       |

Then we do the same computations for thickness:

### Post-hoc tests

In the tables the results for the model with and without covariates are displayed.

|                             | CW vs CM | CW vs TM | CW vs TW | CM vs TM | CM vs TW | TM vs TW |
|-----------------------------|----------|----------|----------|----------|----------|----------|
| L_fusiform_thickavg         | NA       | NA       | NA       | NA       | NA       | NA       |
| R_fusiform_thickavg         | NA       | NA       | NA       | NA       | NA       | NA       |
| L_inferiorparietal_thickavg | NA       | NA       | NA       | NA       | NA       | NA       |
| R_inferiorparietal_thickavg | NA       | NA       | NA       | NA       | NA       | NA       |
| L_postcentral_thickavg      | NA       | NA       | NA       | NA       | NA       | NA       |
| R_postcentral_thickavg      | NA       | NA       | NA       | NA       | NA       | NA       |
| L_precentral_thickavg       | NA       | NA       | NA       | NA       | NA       | NA       |
| R_precentral_thickavg       | NA       | NA       | NA       | NA       | NA       | NA       |
| L_frontalpole_thickavg      | NA       | NA       | NA       | NA       | NA       | NA       |
| R_frontalpole_thickavg      | NA       | NA       | NA       | NA       | NA       | NA       |

|                             | CW vs CM | CW vs TM | CW vs TW | CM vs TM | CM vs TW | TM vs TW |
|-----------------------------|----------|----------|----------|----------|----------|----------|
| L_fusiform_thickavg         | NA       | NA       | NA       | NA       | NA       | NA       |
| R_fusiform_thickavg         | NA       | NA       | NA       | NA       | NA       | NA       |
| L_inferiorparietal_thickavg | NA       | NA       | NA       | NA       | NA       | NA       |
| R_inferiorparietal_thickavg | NA       | NA       | NA       | NA       | NA       | NA       |
| L_postcentral_thickavg      | NA       | NA       | NA       | NA       | NA       | NA       |
| R_postcentral_thickavg      | NA       | NA       | NA       | NA       | NA       | NA       |
| L_precentral_thickavg       | NA       | NA       | NA       | NA       | NA       | NA       |
| R_precentral_thickavg       | NA       | NA       | NA       | NA       | NA       | NA       |
| L_frontalpole_thickavg      | NA       | NA       | NA       | NA       | NA       | NA       |
| R_frontalpole_thickavg      | NA       | NA       | NA       | NA       | NA       | NA       |

And surface area:

### Post-hoc tests

In the tables the results for the model with and without covariates are displayed.

```
## Warning in cbind(c(" ", substring(names(data.hyp[, 67:86])), 4)),
## rbind(c("CW vs CM", : number of rows of result is not a multiple of vector
## length (arg 1)
```

|                            | CW vs CM | CW vs TM | CW vs TW | CM vs TM | CM vs TW | TM vs TW |
|----------------------------|----------|----------|----------|----------|----------|----------|
| L_fusiform_surfavg         | 0.001    | 0.884    | 1        | 0        | 0.002    | 0.334    |
| R_fusiform_surfavg         | 0.002    | 0.281    | 1        | 0        | 0.071    | 0.247    |
| L_inferiorparietal_surfavg | 0        | 0.539    | 0.844    | 0        | 0.012    | 0.013    |
| R_inferiorparietal_surfavg | 0        | 1        | 0.701    | 0        | 0.016    | 0.101    |
| L_postcentral_surfavg      | 0        | 0.43     | 0.55     | 0.013    | 0.008    | 1        |
| R_postcentral_surfavg      | NA       | NA       | NA       | NA       | NA       | NA       |
| L_precentral_surfavg       | 0        | 1        | 0.028    | 0        | 0.959    | 0.069    |
| R_precentral_surfavg       | 0        | 0.055    | 0.004    | 0.002    | 0.037    | 1        |
| L_frontalpole_surfavg      | NA       | NA       | NA       | NA       | NA       | NA       |
| R_frontalpole_surfavg      | 0        | 1        | 1        | 0        | 0        | 1        |

```
## Warning in cbind(c(" ", substring(names(data.hyp[, 67:86])), 4)),
## rbind(c("CW vs CM", : number of rows of result is not a multiple of vector
## length (arg 1)
```

|                            | CW vs CM | CW vs TM | CW vs TW | CM vs TM | CM vs TW | TM vs TW |
|----------------------------|----------|----------|----------|----------|----------|----------|
| L_fusiform_surfavg         | 0.001    | 0.884    | 1        | 0        | 0.002    | 0.334    |
| R_fusiform_surfavg         | 0.002    | 0.281    | 1        | 0        | 0.071    | 0.247    |
| L_inferiorparietal_surfavg | 0        | 0.539    | 0.844    | 0        | 0.012    | 0.013    |
| R_inferiorparietal_surfavg | 0        | 1        | 0.701    | 0        | 0.016    | 0.101    |
| L_postcentral_surfavg      | 0        | 0.43     | 0.55     | 0.013    | 0.008    | 1        |
| R_postcentral_surfavg      | 0.01     | 1        | 0.594    | 0.013    | 0.364    | 0.771    |
| L_precentral_surfavg       | 0        | 1        | 0.028    | 0        | 0.959    | 0.069    |
| R_precentral_surfavg       | 0        | 0.055    | 0.004    | 0.002    | 0.037    | 1        |
| L_frontalpole_surfavg      | NA       | NA       | NA       | NA       | NA       | NA       |
| R_frontalpole_surfavg      | 0        | 1        | 1        | 0        | 0        | 1        |