# Alterations of Mitochondrial DNA Copy Number and Telomere Length with Early Adversity and Psychopathology

## *Supplemental Information*

### Unadjusted Means (Raw values, prior to log transformation)

*Mitochondrial DNA Copy Number*. Unadjusted means were M = 231.8, SD = 121.9 for the No Adversity/No Disorder group; M = 260.1, SD = 117.7 for the Adversity/No Disorder group; M = 286.3, SD = 140.8 for the No Adversity/Disorder group; and M = 281.3, SD = 127.2 for the Adversity/Disorder group.

Unadjusted means for individual disorders were M = 269.1, SD = 113.9 for the group with lifetime MDD; M = 274.3, SD = 129.7 for the group with any lifetime depressive disorder; M = 283.8, SD = 128.3 for the group with lifetime PTSD; M = 294.3, SD = 122.7 for the group with any lifetime anxiety disorder; and M = 280.4, SD = 108.4 for the group with past alcohol or substance disorders.

Unadjusted means for individual types of adversity were M = 296.3, SD = 128.0 for the group who experienced parental loss, and M = 270.6, SD = 126.3 for the group with any form of maltreatment on the CTQ.

*Telomere Length.* Unadjusted means for the Adversity/Disorder grouping variable were M = 7181.00, SD = 4362.80 for the No Adversity/No Disorder group; M = 6432.9, SD = 3372.7 for the Adversity/No Disorder group; M = 5854.1, SD = 4250.9 for the No Adversity/Disorder group; and M = 5642.7, SD = 4138.2 for the Adversity/Disorder group.

Unadjusted means for the individual disorders were M = 4933.0, SD = 3189.2 for the group with lifetime MDD; M = 4855.5, SD = 3525.5 for the group with any lifetime depressive disorder; M = 5064.7, SD = 2616.6 for the group with lifetime PTSD, M = 4802.8, SD = 2960.1 for the group with any lifetime anxiety disorder; and M = 6893.3, SD = 4216.0 for the group with past alcohol or substance disorders.

Unadjusted means for the early adversity types were M = 6482.9, SD = 3932.3 for the group who experienced parental loss and M = 6034.1, SD = 3784.0 for the group with any form of maltreatment on the CTQ.

**General Linear Models (GLMs)**

The following tables show the results of the full GLMs. Standardized regression coefficients, *B,* are shown to display the relative contribution of variables in the model.

**Table S1.** General linear model predicting mitochondrial copy number

| **Source** | ***df*** | ***F*** | ***B*** | ***p*** |
|---|---|---|---|---|
| Adversity/Disorder Grouping | 3 | 8.40 | .28 | .00 |
| Telomere Length | 1 | 42.59 | .36 | .00 |
| Age | 1 | 2.23 | -.09 | .14 |
| Gender | 1 | .01 | .00 | .95 |
| Childhood Socioeconomic Adversity | 1 | .16 | -.02 | .69 |
| Education | 1 | 1.25 | .06 | .26 |
| BMI | 1 | .02 | -.01 | .90 |
| | | | | |
| Error | 280 | | | |

**Table S2.** General linear model predicting telomere length

| **Source** | ***df*** | ***F*** | ***B*** | ***p*** |
|---|---|---|---|---|
| Adversity/Disorder Grouping | 3 | 6.39 | -.25 | .00 |
| Mtdna Copy Number | 1 | 42.59 | .36 | .00 |
| Age | 1 | .62 | -.04 | .43 |
| Gender | 1 | .22 | .03 | .64 |
| Childhood Socioeconomic Adversity | 1 | 1.26 | -.07 | .26 |
| Education | 1 | .00 | .00 | .99 |
| BMI | 1 | 2.34 | -.08 | .13 |
| | | | | |
| Error | 280 | | | |

**Sensitivity Analyses**

The following analyses did not control for the significant positive association of telomere length and mtDNA copy number.

*Mitochondrial DNA Copy Number.* When predicting mtDNA copy number without controlling for telomere length, the grouping variable was still a significant predictor of mtDNA copy number, but the Adversity/No Disorder group differed from the controls only at trend level ($p$ =.069), and the Adversity/No Disorder group was not different from the Adversity/Disorder group ($p$ = .193) or No Adversity/Disorder group ($p$ = .245). The findings for individual disorders and adversity types all remained significant.

*Telomere Length.* When predicting telomere length without controlling for mtDNA copy number, the findings remained significant except that the effect for the No Adversity/Disorder group was reduced to trend level ($p$ = .057), as was the difference between the Adversity/No Disorder group and the Adversity/Disorder group ($p$ = .083). Findings for individual disorders remained significant except for lifetime PTSD ($p$ = .100). Parental loss was associated with telomere length at trend level ($p$ = .056) and the effect of any form of maltreatment on the CTQ was no longer significant ($p$ = .127).