Supplementary Table 5. Final model of multiple linear regression analysis results on predictors of the normalized changes of IED\(_{\text{errors}}\) after TCC training for the female participants (n=33)

|                          | Unstandardized coefficients | Standardized coefficients | Adjusted R\(^2\) | Adjusted R\(^2\) change | F      | p-value |
|--------------------------|------------------------------|---------------------------|------------------|--------------------------|--------|---------|
|                          | B               | Standard error | Beta          | p-value          |        |         |
| Constant                 | 7.733           | 3.825          | 0.068          |                |        |         |
| Covariates               |                 |               |                |                |        |         |
| Age                      | -0.036          | 0.027          | -0.446         | 0.207          |        |         |
| Education                | -0.063          | 0.044          | -0.405         | 0.179          |        |         |
| GFA\(_{\text{pre}}\) of the PSTP loop | -10.393         | 4.576          | -0.748         | 0.044*         | 0.152  | 0.313   | 5.157  | 0.044* |

GFA\(_{\text{pre}}\), generalized fractional anisotropy at baseline; IED\(_{\text{errors}}\), the number of total errors of the Intra/Extra-dimensional set shift test; PSTP, prefronto-striatal-thalamo-prefrontal; TCC, Tai Chi Chuan group. Normalized change of IED\(_{\text{errors}}\) = (post-test IED\(_{\text{errors}}\) – pre-test IED\(_{\text{errors}}\)) / pre-test IED\(_{\text{errors}}\).

The stepwise method was applied, using the criteria of p(F)< 0.05 as the probability-to-enter and p(F) ≧ 0.10 as probability-to-remove. Age and education were entered as covariates.

* \(p < 0.05\).