

Supplementary Text 1. Cluster analysis

It is important to consider whether the cutoff score 40 for defining the high-PeVA group was appropriate for our high school students, although the VAQ score had been used in a previous DTI study for peer verbal abuse¹ and was acceptable in young adults.² A cluster analysis was conducted to verify the validity of the criteria in our data. Both PeVA and parental verbal abuse (PaVA) scores were used in the cluster analysis, since other behavioral measurements can be affected by previous abuse history. All 30 subjects who finished behavioral measurements were included. The ratings of PeVA showed normal distribution, and there were no outliers among our subjects (Shapiro-Wilk statistics=0.942, $p=0.1$). To define the best number of clusters, both 'Nbclust' (<http://cran.r-project.org/web/packages/NbClust/index.html>) and 'fpc' (<http://cran.r-project.org/web/packages/fpc/index.html>) packages of R were used. The results showed that dividing subjects into two groups was the best fit in our data, and only one subject who rated 40 in PeVA was classified to the control group (Supplementary Figure 1 in the online-only Data Supplement). We concluded that a cutoff score of 40 was generally acceptable to our data, and group analysis was applied using this criterion that might maintain a connection with previous PeVA studies.

REFERENCES

1. Teicher MH, Samson JA, Sheu YS, Polcari A, McGreenery CE. Hurtful words: association of exposure to peer verbal abuse with elevated psychiatric symptom scores and corpus callosum abnormalities. *Am J Psychiatry* 2010;167:1464-1471.
2. Jeong B, Lee SW, Lee JS, Yoo JH, Kim KW, Cho S, et al. The psychometric properties of the Korean version of the verbal abuse questionnaire in university students. *Psychiatry Investig* 2015;12:190-196.