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Self-reported sleep and β -amyloid deposition in community older adults--Reply

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Dr. Kawada raised several concerns with our paper.¹ First, we acknowledge that there were relatively few participants reporting restless sleep or extremely short sleep duration in our sample. However, we treated sleep quality and duration as continuous variables in our regression models, and our sample provided adequate power across the range of values to detect significant associations between reports of worse sleep and greater β -amyloid deposition. Although further research is warranted, our results may indicate that sleep need not be extremely restless or of very short duration to show an association with β -amyloid burden.

Dr. Kawada's second point raises the possibility of a potential confounding role of depression, and we note that our findings remained significant after adjustment for even subclinical variation in depressive symptoms.

Finally, Dr. Kawada indicated that an adjusted R-squared should be reported and questioned the numbers of covariates in the model. We note that we reported partial correlation coefficients (partial R) to provide estimates of the correlation between sleep and β -amyloid deposition and that results for unadjusted analyses were similar to those with full covariate adjustment.

We hope that our findings will motivate additional research in this area that includes larger, prospectively followed cohorts with objective measures of sleep.

References

1. Spira AP, Gamaldo AA, An Y, et al. Self-reported Sleep and β -Amyloid Deposition in Community-Dwelling Older Adults. JAMA Neurology. Oct 21.2013

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