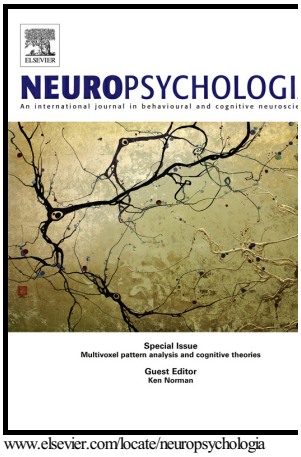

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Hippocampal activity mediates the relationship between circadian activity rhythms and memory in older adults

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PII: S0028-3932(15)30105-6
DOI: http://dx.doi.org/10.1016/j.neuropsychologia.2015.07.020
Reference: NSY5673

To appear in: *Neuropsychologia*

Received date: 24 March 2015
Revised date: 17 July 2015
Accepted date: 18 July 2015

Cite this article as: Stephanie M. Sherman, Jeanette A. Mumford and David M Schnyer, Hippocampal activity mediates the relationship between circadia activity rhythms and memory in older adults, *Neuropsychologia* http://dx.doi.org/10.1016/j.neuropsychologia.2015.07.020

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Abbreviated title: Circadian rhythms, memory, hippocampal activity

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Abstract

Older adults experience parallel changes in sleep, circadian rhythms, and episodic memory. These processes appear to be linked such that disruptions in sleep contribute to deficits in memory. Although more variability in circadian patterns is a common feature of aging and predicts pathology, little is known about how alterations in circadian activity rhythms within older adults influence new episodic learning. Following 10 days of recording sleep-wake patterns using actigraphy, healthy older adults underwent fMRI while performing an associative memory task. The results revealed better associative memory was related to more consistent circadian