

## Departmental Seminar

# The Role of Sleep in Cognitive and Affective Biases among Individuals with Depression

11:00 a.m. – 12:00 noon | August 30, 2017 (Wednesday)

Rm 813, 8/F, The Jockey Club Tower | Centennial Campus | The University of Hong Kong



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### Abstract

Both sleep disturbances and cognitive and affective biases (attention, memory, and interpretation biases) have been proposed to play a role in the etiology and maintenance of depression. However, it remains unclear whether and how sleep is associated with such biases in individuals with depression. In this experiment using a napping paradigm, 49 participants with major depressive disorder and 71 non-depressed controls completed a dot-probe task (to measure attentional bias), an emotional face perception task (to measure interpretation bias) and an incidental memory task (to measure memory bias) before and after one of the three randomly assigned conditions (i.e. Wake, 90-min-nap, 30-min-nap). Results showed that within the depressed group, increased negative attentional bias was found after a period of wakefulness, whereas napping mitigated the changes. Whereas memory consolidation of positively-valenced pictures was found in the control group who napped, the depressed group did not show such consolidation over sleep. Instead, the depressed group displayed higher false alarm rate of negative stimuli after a nap. Increased intensity ratings of fearful faces were observed only in the depressed group who obtained a REM-containing nap. Our findings suggest that emotional processing in the depressed group was altered by a period of daytime sleep, providing further evidence to the role of sleep in depression and the heightened cognitive and affective biases as potential underlying mechanisms.

~All are Welcome~

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