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Naps with rapid eye movement sleep increase receptiveness to positive emotion

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Naps with rapid eye movement (REM) sleep refresh the brain's empathetic sensitivity for evaluating human emotions by decreasing a negative bias and amplifying recognition of positive emotions.

Results show that the emotional brain is not stable across the day, resulting in marked changes in emotional reactivity. Naps with REM sleep objectively and bi-directionally modify specific emotions. Individuals who took a 60 to 90 minute nap with REM sleep displayed increased receptiveness to happy facial expression following sleep. People who did not take a nap during the day displayed an amplified reaction to anger and fear.

Lead author Ninad Gujar, senior research scientist at the University of California in Berkley, said that findings of the study emphasize the importance of sleep for the most basic yet psychologically and socially important brain process.

"Social interactions are critically guided by, and indeed are predicated on the basis of, accurately recognizing emotional facial expressions," said Gujar. "Only through accurate recognition can cogent social judgments and subsequent actions be made. Nowhere are these accurate emotional face judgments more critical than in many professions that are associated with sleep curtailment, including emergency and resident medical staff, military personnel, and even new parents."

The study involved 36 men and women, who were asked to rate four

different affective face categories which included fear, sadness, anger and happiness. Participants performed the rating task twice; once at 12 p.m. and again the same day at 5 p.m. Half of the participants took a 60 to 90 minute nap that was monitored with polysomnography between the first and second rating sessions while the remaining individuals stayed awake.

Gujar states that the results highlight the importance of sleep in beneficially adapting emotional reactivity and stability at social, professional and mental health levels.

Source: American Academy of Sleep Medicine (news : web)

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