

The efficacy of one-time and intermittent intake of coffee as a countermeasure to sleepiness on partially sleep-deprived drivers

Manik Mahachandra, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=9999920522178&lokasi=lokal>

Abstrak

Research has been done the effect of coffee on sleepiness. Several studies claim that caffeine is proven to overcome sleepiness. However, little is known about the effect of various methods and amounts of coffee intake on a sleep-deprived person. This study compares the effectiveness of one-time and intermittent intake of coffee to overcome driver sleepiness due to partial sleep deprivation. This study used a within-subject experimental design in a driving simulator. There were eight participants, all of whom met certain criteria. The participants' degree of sleepiness was measured objectively and subjectively. Objectively, the degree of sleepiness was measured based on alpha, beta, and theta brainwaves using an electroencephalograph (EEG); subjectively, this study used the Karolinska Sleepiness Scale (KSS). The participants experienced partial sleep deprivation the night before each experiment. The results of this study support previous studies' findings that coffee can reduce sleepiness. This study also found differences in the effectiveness of one-time vs. intermittent intake of coffee (sig. value for EEG = 0.025; sig. value for KSS = 0.001). For partially sleep-deprived drivers, one-time coffee intake was found to be more effective in counteracting both objective and subjective sleepiness than intermittent coffee intake.