

WORLD CONGRESS OF CHRONOBIOLOGY

September 9 - 12, 2003

Hokkaido University, Japan

Investigation of Factors Concerning Habitual Self-awakening

- Sleep/wake Habits and Autonomic Activity during Nocturnal Sleep-

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[Introduction] It is understood that some individuals are capable of self-awakening; they habitually wake up in the morning without external means such as alarm clock.

[Survey] Method: We conducted a survey on 1,377 students (age 14-25). They were classified into two groups according to the categorization proposed by Moorcorft et al. (1997); 1)SA: those who habitually self-awaken (“never use alarm clock” or “use it but awake before alarm”), 2)nonSA: those who do not habitually self-awaken (“use alarm clock but sometimes awaken before alarm” or “use it and do not awaken before alarm”).

Result: SA group went to bed earlier and showed higher ME-score than nonSA group (49.6 v.s. 44.5). Although the number of subjective awakening was higher in SA group, they mentioned that they felt good as they woke up and dozed less in the daytime. Habitual self-awakening is likely to correlate with morningness and has positive effects on activity after wake-up.

University and professional training school students were included in the present subjects. SA ratio of professional training students, who were in a stricter time control in the morning, was higher (15.3%) than that of university students, who are under less regulation (10.3%). This suggests that strict time control in the morning makes easier to self-awaken.

[Experiment] Method: We also recorded nocturnal sleep to investigate autonomic activity before self-awakening. We investigated comparatively in the heart rate during 60 minutes prior to their awakening. We gave SA group two adjusting nights followed by two experimenting nights with both self-awakening and forced awakening mornings.

Result: The heart rate during the 60 minutes in the self-awakening condition was higher than in the forced awakening condition. It may be implied, as a result, that one prepares autonomically for waking up when self-awakens. Feeling better when they habitually self-awaken supposed to reflect the preparation.

[Conclusion] Morning-oriented life patterns, strong time control in the morning, and the autonomic preparation were proved to be the factors for habitual self-awakening.