Studies of Sleep Deprivation

This activity will help you to:

- ❑ *Understand and recall studies of sleep deprivation*
- ❑ *Comment on the implications of research findings into sleep deprivation*
- ❑ *Consider how the methods used in such studies limit the conclusions we can draw from them.*
- ❑ *Make effective notes on psychological material*

Details of Study	Implications (what does it tell us?)	Criticisms (which features limit its usefulness?)
Rechtschaffen & Bergman (1995) **Aim:** to show the effects of sleep deprivation in animals. **Sample:** rats. **Design:** laboratory observation, longitudinal. **Method:** rats were completely deprived of sleep for a period of four weeks. During this time, observations were made of appetite, body weight, metabolic activity and brain activity. **Result:** the rats started to eat more, but at the same time to lose weight. Body temperature rose and metabolic rate increased. After 2 weeks, weight loss was very marked, despite increased food intake, and body temperature had become unstable. At this point, the thyroid gland failed and metabolic rate dropped. Within three weeks, the rats were showing signs of immune failure and most had died after four weeks of continuous sleep deprivation.		

Contributed by Aidan Sammons

Webb & Bonnet (1979a) **Aim:** to show the effects of sleep deprivation in humans. **Sample:** two adult males. **Design:** exploratory study. **Method:** the pps were restricted to two hours sleep on one night. Measures were taken of physiological and psychological functioning and the pps' sleep was monitored the following night. **Result:** The pps reported no ill effects the following day. The following night, they fell asleep more quickly than usual and slept for slightly longer than usual.		
Webb & Bonnet (1979b) **Aim:** to show the effects of longer-term sleep deprivation in humans. **Sample:** student volunteers. **Design:** longitudinal. **Method:** Over a period of two months, pps were allowed shorter and shorter sleeping times, reducing from 8 hours at the beginning of the study to 4 hours by the end. Measures of physiological and psychological functioning were taken. **Results:** There were no ill effects for the pps.		
Individual Case Studies **Peter Tripp** (8 days continuous deprivation) suffered hallucinations and delusions whilst awake, and may have experienced long-term mental health consequences. He caught up on some of the sleep he had missed. **Randy Gardner** (11 days continuous deprivation) experienced mild disturbances of perception and difficulties with basic cognitive tasks. He also experienced some emotional disturbances. After catching up on 25% of the lost sleep, he apparently recovered completely normal functioning.		