

# Changes in Postpartum Sleep Quality: A Descriptive Study among Japanese First-time Mothers over aged 35

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## Background

Taking care of new-born babies is labour intensive. Frequent feeding during nights, which disturbs mothers' regular sleep patterns, may deteriorate sleep quality. This may lead to fatigue and consequently delay in mothers' physical recovery.

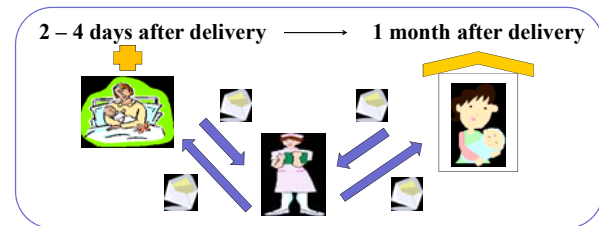
## Objectives

The objective of this study was to describe the change of sleep quality from the time of stay in maternity wards (MW) to that of 1 month after delivery among Japanese primiparous mothers over aged 35.

## Methods

**Participants:** A total of 7 Japanese primiparous women over 35 years old participated (age ranged from 35 to 38 years old).

**Procedure:** Following both departmental and medical ethics approvals, potential participants were recruited in MW. Written informed consent was obtained by every participant.



• Sleep-wake patterns were measured using wrist *actigraph* (Ambulatory Monitoring Inc.).

• Participants were asked to continuously wear actigraph for 48 hours (but participants were allowed to take it off in having a shower).

• Information about mother-baby separations, napping and frequencies of feeding per night was obtained by self-report questionnaires.

• 24 hours actigraphy data (between 0.00 and 24.00) were used to estimate *sleep efficiency* - an actigraphic indicator of sleep quality -, using AW2 version 2.6.



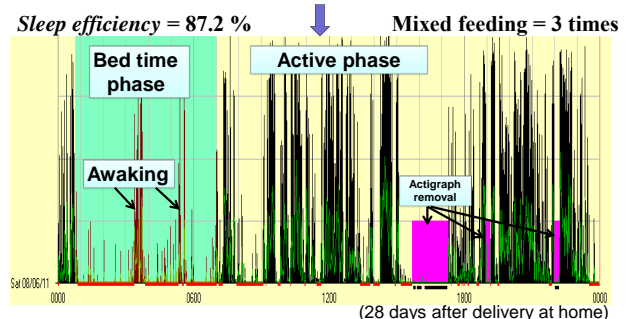
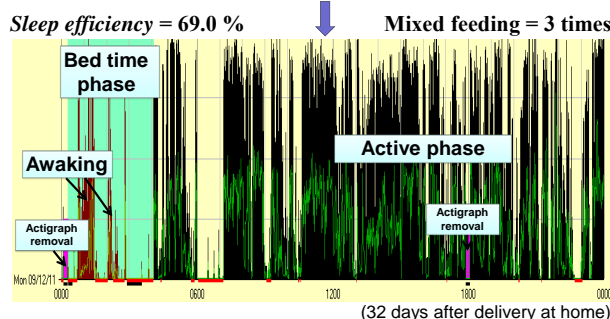
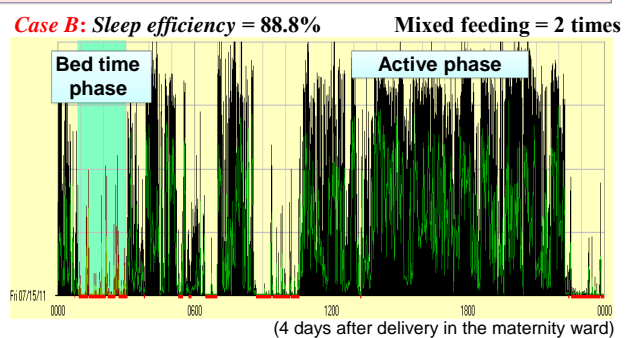
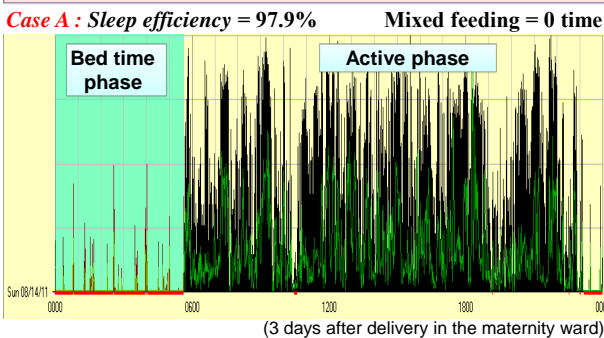
The Micro Motionlogger® Sleep Watch

## Results

### Sleep efficiency suggested

- In MW, 5 mothers have good sleep quality ( $\geq 90\%$ ).
- Of 5, 2 mothers' sleep quality deteriorated at 1 month after delivery.
- One mother had experienced a mother-baby separation in MW (no feeding at the night), but she had not done so at home at 1 month after delivery (**Case A**).
- In MW, 2 mothers have poor sleep quality ( $< 90\%$ ).
- Their sleep quality slightly deteriorated at 1 month after delivery.
- These 2 mothers had more frequently fed their babies at the night at home at 1 month after delivery than in MW (**Case B**).

### Examples of actigraphy record



## Conclusions

*This preliminary study does not draw any conclusions, but the findings may suggest that*

- Japanese primiparous mothers over aged 35, who experience early separations from their babies, do not have opportunities to acquire adequate skills in baby care during the stay in MW, and this may lead to longer awake time and poorer sleep quality at the time of 1 month after delivery than that of stay in MW.
- Japanese primiparous mothers over aged 35, who more often awake for feeding at the night, have poorer sleep quality at the time of 1 month after delivery than that of stay in MW.

## Acknowledgements

This study was supported by a funding program for next generation world-leading researchers, from the Ministry of Education, Culture, Sports, Science and Technology, Japan