

A decorative illustration of a dark brown branch with several pink cherry blossoms and buds, extending from the top left corner towards the center of the slide.

# Sleep Quality and Its Related Factors during Pregnancy

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# Background

- Pregnant women experience greater disturbed sleep such as more awakenings, longer awakening time, and lower sleep efficiency than non-pregnant women.
- Poorer sleep was found to relate to longer labor duration, cesarean delivery, and fatigue.
- Sleep quality during pregnancy was not well studied.

# Purposes

- To explore sleep quality and its related factors of pregnant women.

# Design and Setting

- Cross-sectional survey
- Participants were recruited in the waiting area of the obstetrics/gynecology clinic in two hospitals while waiting for prenatal checkups.
  - One medical center in northern Taiwan
  - One teaching hospital in southern Taiwan

# Sampling

- Cross-sectional survey
- Participation criteria
  - Are over 17 years old
  - Can read and communicate with Chinese/Taiwanese
  - Are at or over 24 weeks of gestation
  - Pregnant with singleton
  - Are not diagnosed of pregnancy complications such as preeclampsia, preterm labor, preterm rupture of membranes, gestational diabetes, and cervical incompetence before recruitment
  - Are willing to complete questionnaires

# Sample

- 397 pregnant women participated.
- Mean gestational age was 31.18 weeks.
  - 42.8% were in the second trimester and 57.2% in the third trimester.
- Mean age was 31.60.
- More women were multiparous, employed, graduated from university or higher, and planned the pregnancy.

# Instruments

- Pittsburgh Sleep Quality Index (PSQI)
  - 19-items
  - The global sleep quality ranges from 0 to 21.
  - A global score  $>5$  indicates a poor sleep quality.
  - Cronbach's alpha was .76 in this study.
- One single question asked about sleep quality and problem of poor sleep quality was used.

# Analysis

- Participants were grouped into 2nd trimester (<29 weeks, n=170, 42.8%) and 3rd trimester ( $\geq$ 29 weeks, n=227, 57.2%).
- Descriptive statistics
- Mann-Whitney U test
- Kruskal-Wallis



# Results

- The mean score of the PSQI was 7.39 (SD=3.23).
- 67.4% experienced poor sleep quality.
- By answering the single question about sleep, 73.6% of pregnant women reported having disturbed sleep.
  - 76.0% had interrupted sleep
  - 28.3% felt sleepy in daytime
  - 25.1% could not fall asleep
  - 12.2% felt a lack of sleep

# Results

- Sleep quality differed by trimester ( $t=3.71$ ,  $p<.001$ )
  - Women at later pregnancy experienced poorer sleep quality.
- Sleep quality did not differ by age, educational level, employment, parity, or whether planned the pregnancy.

# Conclusion

- Many pregnant women experienced poor sleep quality, especially interrupted sleep, regardless of their personal characteristics.
- Active assessment and management of pregnant women's sleep problems need to be done since early pregnancy.
- Strategies that may help pregnant women to sleep need to be developed, tested, and implemented.
- Physiological factors that may explain poor sleep quality need to be explored.



Thank you