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 (>=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