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Evening snacking in relation to self-reported declines in sleep quality during pregnancy: preliminary results from the Decision-Making, Eating, and Weight Gain during pregnancy (DEW) Study

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Background: Poor sleep in non-pregnant adults has been associated with increased evening snacking, which may contribute to weight gain. Sleep disturbances are common during pregnancy.

Objective: To examine the association between changes in sleep quality from pre-pregnancy and evening snacking.

Methods: In an ongoing prospective cohort study, pregnant women were recruited from UMMHC obstetric practices and the community. Participants are 18+ years, with singleton gestation <36 weeks, pre-pregnancy BMI 18.5-40 kg/m², English-speaking, and with plans to deliver at UMMHC. Participants were asked “compared to the three months before you became pregnant, how is your sleep quality now?”; we combined responses of “about the same”/“a little better”/“a lot better” versus “a little worse”/“much worse”. Participants completed three 24-hour dietary recalls (2 weekdays, 1 weekend day). Evening snacks were defined as eating occasions after dinner but before bedtime during which food items other than water was consumed. Fisher’s Exact tests and t-tests provided comparisons for evening snacking (yes/no), number of snacks, and energy intake.

Results: Women with complete data (n=55) were 58% non-Hispanic White and aged 30.0 (SD:4.3) years; gestational age at study visit was 23.0 (SD:5.9) weeks. Of 866 meals reported, 94 were evening snacks. 71% (n=39) reported that their current sleep quality was worse than before pregnancy. Evening snacks were reported by 90% of women reporting worse sleep and 69% same/better (p=0.1028). While the number of snacks among snackers did not differ by change in sleep quality (M[SD]: 2.2[1.2] versus 1.6[0.8], p=0.2372), energy intake from these snacks was higher among women whose sleep quality had declined (M[SD]: 630[488] versus 309[331] kcal, p=0.0480).

Conclusions: Declines in sleep quality during pregnancy may be linked to evening snacking. More research is needed to understand the role of sleep quality, eating behavior, and weight gain during pregnancy.