

# The Sleep Support for Mom's Intervention

## A Pilot Randomized Controlled Trial



Sue Bhati, PhD, FNP-BC

### BACKGROUND

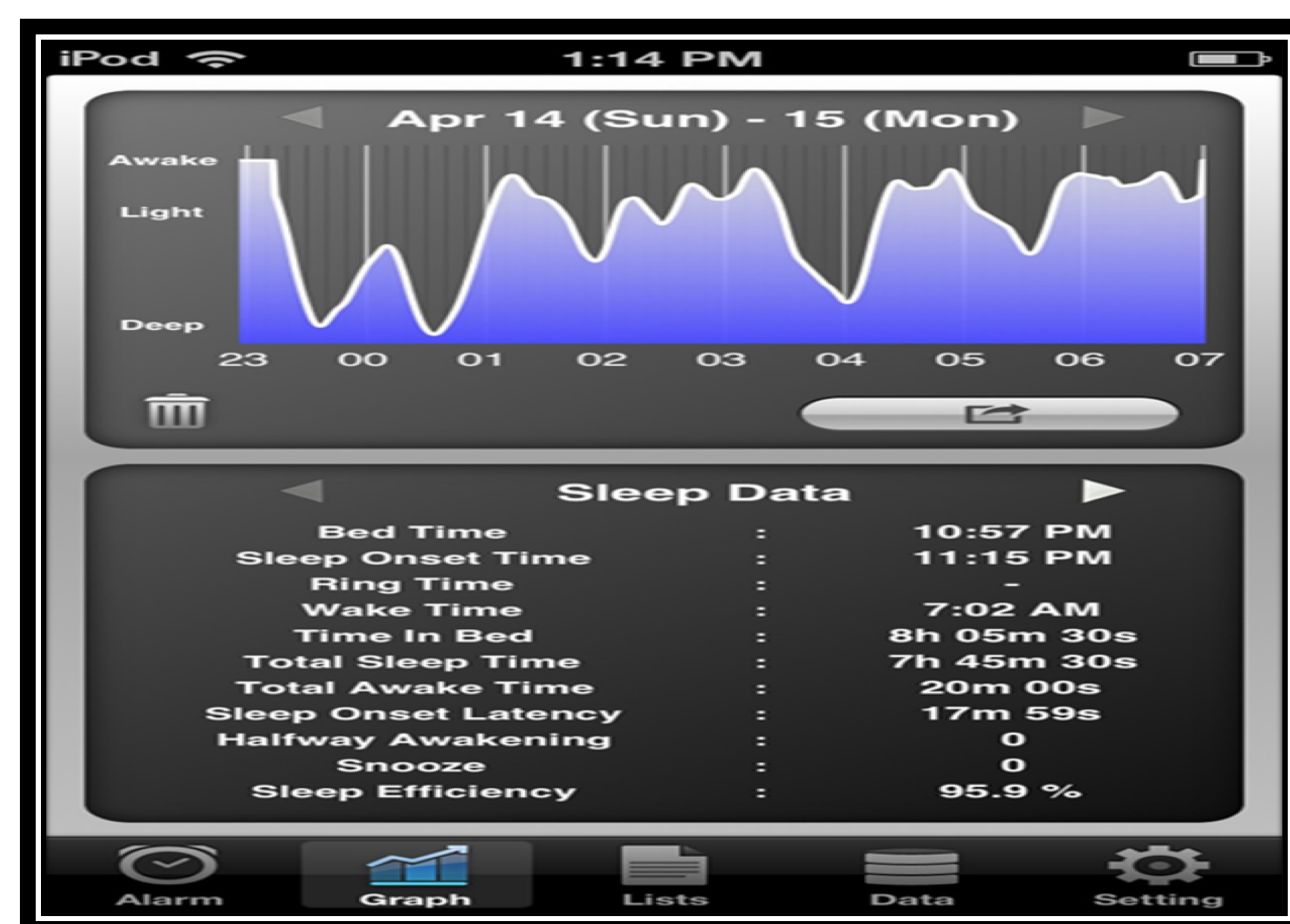
Several studies established an association between sleep disturbance and postpartum depression, but few studies examined interventions to improve postpartum sleep, and decrease depressive symptoms.

### PURPOSES

The purposes of this pilot randomized controlled trial were to determine:

- the feasibility of the Sleep Support for Moms Intervention (SSMI) and the smart phone sleep application Sleep Time,
- and the effect of the SSMI on sleep and depressive symptoms in postpartum women, and on the sleep of their infants.

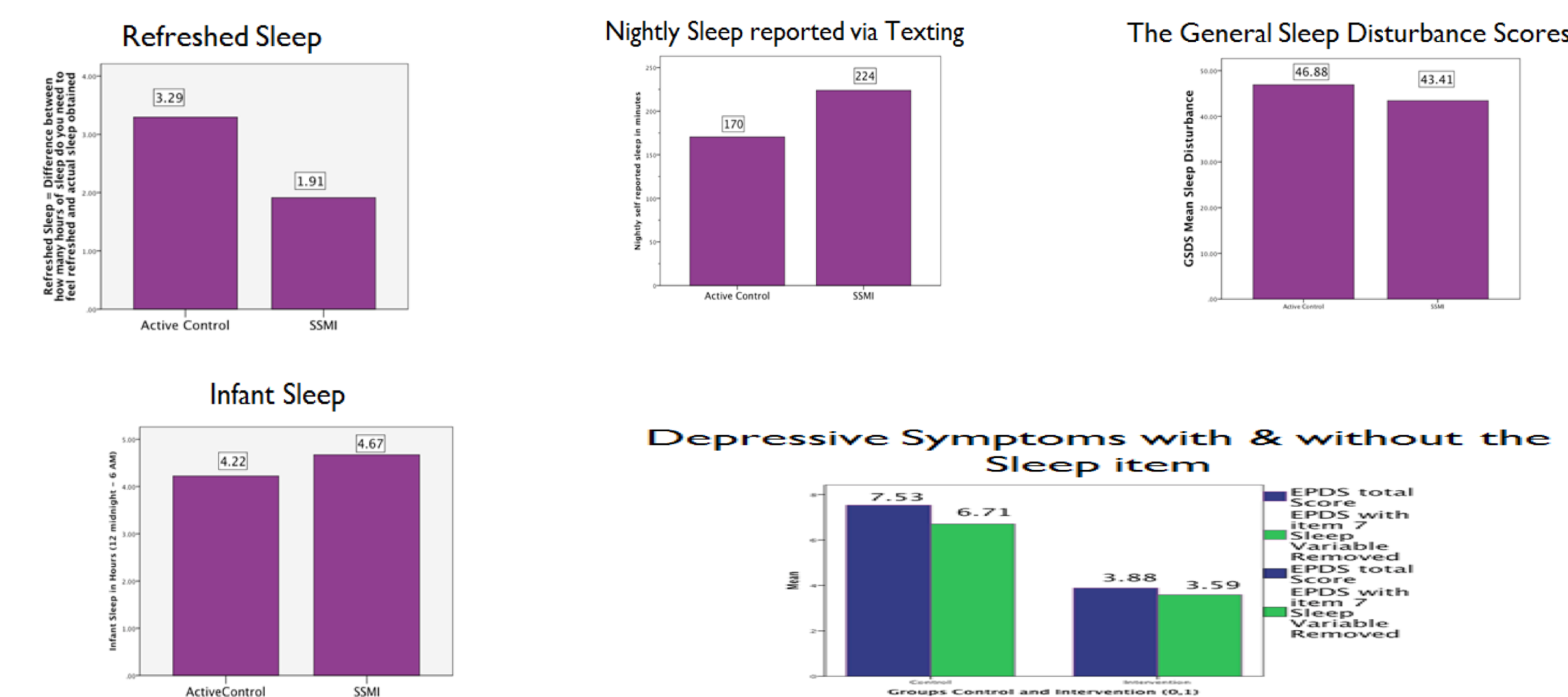
### SLEEP APPLICATION



### METHODS

- First time mothers ( $n=40$ ) from a nonprofit obstetric clinic were consented, and randomized to the SSMI or the active control group.
- A computer generated randomizer was used to generate 40 randomized numbers.
- The SSMI was a prenatal 45-minute anticipatory guidance class on postpartum sleep, which entailed enlisting support, room sharing, sunlight exposure, enhancing infant sleep, sleep hygiene tips, and weekly cellular phone texting. The active control group received an identical class and weekly texting, except the topic was on infant care.
- Sleep was measured subjectively with daily texts of nighttime sleep and the General Sleep Disturbance Scale. Objective sleep was measured with the sleep application.
- Depression was measured with the Edinburgh Postnatal Depression Scale.
- Data were analyzed using independent samples  $t$  tests.

### RESULTS



### Sample Characteristics

Variable	SSMI $n = 17$	Control $n = 17$	Both Groups $n = 34$
Age in Years, mean $\pm$ SD	23.47 $\pm$ 5.24	29.24 $\pm$ 6.12	26.3 $\pm$ 6.33
<b>Race</b>			
Black, n (%)	1 (5.9)	7 (41.2)	8 (23.5)
White, n (%)	5 (30)	4 (23.5)	9 (26.5)
Hispanic, n (%)	9 (52.9)	3 (17.6)	12 (35.3)
European, n (%)	0 (0%)	2 (11.8)	2 (5.9)
Asian, n (%)	2 (11.8)	1 (5.9)	3 (8.9)
<b>Income</b>			
<35,000, n (%)	13 (81.5)	10 (58.9)	10 (58.9)
>35,000, n (%)	4 (18.5)	7 (32.4)	7 (32.4)
<b>Health Insurance</b>			
None, n (%)	2 (11.8)	2 (11.8)	4 (32.4)
Medicaid, n (%)	11 (64.7)	8 (47.1)	19 (55.9)
Insurance, n (%)	4 (23.5)	7 (41.2)	11 (32.4)
<b>Education</b>			
Middle School, n (%)	6 (35.3)	3 (17.6)	9 (26.5)
High School, n (%)	7 (41.2)	6 (35.3)	13 (64.7)
College, n (%)	2 (11.8)	6 (35.3)	8 (23.5)
Graduate, n (%)	2 (11.8)	2 (11.8)	4 (11.5)
<b>Marital Status</b>			
Single, n (%)	3 (29.4)	2 (35.3)	11 (32.4)
Married, n (%)	9 (52.9)	9 (52.9)	18 (52.9)
Partnered, n (%)	5 (17.6)	6 (11.8)	5 (14.7)
<b>Help with baby</b>			
Yes, n (%)	14 (82.5)	15 (87.2)	29 (85.3)
No, n (%)	3 (17.6)	2 (11.8)	5 (14.7)
<b>Pregnancy</b>			
Planned, n (%)	11 (35.3)	8 (52.9)	15 (55.9)
Unplanned, n (%)	6 (64.7)	9 (47.1)	19 (44.1)
<b>Birth</b>			
Vaginal birth, n (%)	12 (70.6)	8 (67.7)	23 (67.6)
Cesarean section, n (%)	5 (29.4)	9 (35.5)	11 (32.4)
<b>Feeding Type at 6 weeks</b>			
Breast feed, n (%)	11 (64.7)	11 (64.7)	21 (61.8)
Bottle feed, n (%)	3 (17.6)	4 (23.5)	7 (20.6)
Both breast & bottle (%)	3 (17.6)	2 (5.9)	6 (17.6)

### RESULTS

- 34 first time mothers with diversity in race and ethnicity.
- The SSMI was acceptable and 92% were adherent.
- The sleep application was not feasible.
- The SSMI group had significantly more refreshed sleep  $t = (32)=2.904$   $p = .007$ , and more nightly sleep  $t = (32)=3.899$   $p = .001$ .
- There were no significant differences between the groups in infant sleep ( $p=.282$ ) and the General Sleep Disturbance Scale ( $p=.472$ ).
- The SSMI group had significantly lower depressive symptoms,  $t = (32)=2.173$   $p = .037$ .

### CONCLUSIONS

- Anticipatory guidance on sleep provided by a health professional can improve sleep and decrease depressive symptoms.
- These results must be viewed within the context of a pilot study and the necessity to replicate this study with a larger sample.