



# HerbClip™

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**File: ■ Lavender (*Lavandula* spp., Lamiaceae)**  
**■ Sleep Quality**  
**■ Postpartum Women**

**HC 071512-536**

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**RE: Lavender Fragrance May Improve the Quality of Sleep for Postpartum Women**

Keshavarz Afshar M, Behboodi Moghadam Z, Taghizadeh Z, Bekhradi R, Montazeri A, Mokhtari P. Lavender fragrance essential oil and the quality of sleep in postpartum women. *Iran Red Crescent Med J.* 2015;17(4):e25880. doi: 10.5812/ircmj.17(4)2015.25880.

Many postpartum mothers experience poor sleep quality, which has been shown to contribute to depression, lack of concentration, and the inability to perform daily activities. Previous studies indicated that aromatherapy may have positive effects on sleep quality. The aim of this randomized, clinical trial was to evaluate the effects of lavender (*Lavandula* spp., Lamiaceae) aromatherapy on quality of sleep in postpartum women.

Women recruited for the study had recently given birth and were covered by health centers affiliated with Zanjan University of Medical Sciences in Zanjan, Iran. Subjects aged 18-35 years were included in this study if they were healthy, primiparous (had 1 childbirth), exclusive breast-feeders, had uncomplicated vaginal deliveries, and had sleep disorders (Pittsburgh Sleep Quality Index score  $\geq 5$ ). Subjects were excluded from the study if they had health problems, consumed sedatives, or suffered from depression.

The aromatherapy blend used in this study consisted of 10% lavender essential oil in sesame (*Sesamum indicum*, Pedaliaceae) carrier oil (Barij Essence Pharmaceutical Co.; Mashade Ardehal, Kashan, Iran); the placebo included only the sesame oil. A total of 79 subjects in each group put 4 drops of oil on a cotton ball and placed it beside their pillow (in a container that was 20 cm [7.87 in.] away). The subjects inhaled 10 deep breaths before bedtime for 4 consecutive days per week, for a total of 8 weeks. To ensure compliance, subjects were reminded by the researchers of the intervention by phone or text message. Sleep disorders were evaluated based on the Pittsburgh Sleep Quality Index at baseline, 4 weeks, and 8 weeks from the start of the intervention.

Demographic characteristics were similar for all subjects ( $P>0.05$ ). Confounding factors (e.g., light, noise, and sleep conditions of infants) were not significantly different among the subjects ( $P>0.05$ ). The mean score of sleep quality at baseline was not significantly

different ( $P > 0.05$ ) between the aromatherapy group ( $8.28 \pm 2.11$ ) and the placebo group ( $8.45 \pm 2.30$ ). After 4 weeks of the intervention, there was a nonsignificant improvement ( $P > 0.05$ ) in the mean quality of sleep score for the aromatherapy group ( $7.59 \pm 2.53$ ) compared to the placebo group ( $8.06 \pm 2.20$ ). By 8 weeks, there was a significant improvement ( $P < 0.05$ ) in quality of sleep for the aromatherapy group ( $6.79 \pm 2.36$ ) in comparison to the placebo group ( $7.56 \pm 2.14$ ). There was also a significant difference in sleep quality from baseline to 8 weeks in the aromatherapy group ( $P < 0.05$ ), whereas no significant difference was observed ( $P > 0.05$ ) in the placebo group.

The results of this study indicate that lavender aromatherapy may improve the quality of sleep in postpartum women. These results are consistent with another study that indicated that lavender essential oil improved sleep quality of middle-aged women suffering from insomnia.<sup>1</sup> The authors had suggested the use of aromatherapy in postpartum women in a previous study, however, the lack of efficacy observed may have been due to short duration, procedures used, and inclusion of women with adequate sleep.<sup>2</sup> Due to the inability to blind the subjects from the fragrance of lavender, the placebo effect should be considered. Future studies should also compare the effects of several different essential oil fragrances on sleep quality.

One of the authors, Reza Bekhradi, works in the Research and Development Unit of Barij Essence Company.

—*Laura M. Bystrom, PhD*

#### References

<sup>1</sup>Chien LW, Cheng SL, Liu CF. The effect of lavender aromatherapy on autonomic nervous system in midlife women with insomnia. *Evid Based Complement Alternat Med*. 2012;2012:740813. doi: 10.1155/2012/740813.

<sup>2</sup>Lee S-H. Effects of aroma inhalation on fatigue and sleep quality of postpartum mothers. *Korean Journal of Women Health Nursing*. 2004;10(3):235-243.

Referenced article can be accessed at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4443384/>.

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