

*Title:* Auricular Acupuncture Treatment Associated with Improved Self-Reported Sleep and Emotional Distress in Hispanic and Latino Immigrants: A Preliminary Report

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*Introduction:* Hispanics/ Latino immigrants face sociocultural stressors that may contribute to sleep disturbance. We investigated: 1. Whether Hispanic/ Latino immigrants with self-reported sleep disturbance showed improvements in sleep with auricular acupuncture; 2. If sleep effects were associated with emotional distress.

*Methods:* Emotional distress and sleep responses to auriculotherapy in Hispanic/ Latino adult immigrants were measured using Emotional Distress (ED), Athens Insomnia (AI), and Pittsburgh Sleep Quality Index (PSQI) scales completed Baseline, Mid (4 treatments), and Follow-up (8 treatments). Randomly assigned intervention was bi-weekly for 8 treatment sessions of 5 needles inserted bilaterally: Active Intervention [NADA protocol (Shen men, sympathetic autonomic, lung, liver and kidney points)] OR Sham Control (outer ear helix with no active points). Scores were compared between Groups (NADA or SHAM) and within Pre-, Mid- and Post- treatment sessions using Mixed-Model ANOVA; linear regression assessed ED scores association with sleep.

*Results:* Ten Hispanic/ Latino female participants [NADA, N=5, mean (SD) age = 41 (14); SHAM, N =5; mean (SD) age = 42 (17)]. Anovas for ED, ASI and PSQI showed significant within-subjects effects ( $p$ 's < .05). Baseline; Mid; Follow-up Mean (SD) = **AI**: 12.3 (8.9); 8.5 (6.9); 7.1 (12.8); **PSQI**: 10.9 (5.4); 8.9 (2.8); 7.6 (3.4); **ED**: 25.6 (50.4); 17.6 (26.7); 16.9 (29.8). Post-hoc t-tests were significant between Baseline/ Mid-Way and Baseline/ Final for all measures ( $p$ 's < .05). Linear Regression showed significant association between ED and PSQI (R square = 0.25;  $p$  < .05): lower Emotional Distress associated with lower PSQI.

*Conclusions:* Auriculotherapy may improve sleep in the Hispanic/ Latino immigrants after 4 treatments suggesting a novel, low-cost, easily implemented group treatment option for improving sleep in this community. Better sleep was associated with decreases in emotional distress supporting our hypothesis. Data collection continues and larger sample size will allow for increased power to detect between group differences.

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