

Article

A Pacifier-Activated Music Player With Mother's Voice Improves Oral Feeding in Preterm Infants

Olena D. Chorna, MT-BC, MM^a, James C. Slaughter, PhD^b, Lulu Wang, BS^c, Ann R. Stark, MD^d, and Nathalie L. Maitre, MD, PhD^{d,e}

+ Author Affiliations

ABSTRACT

OBJECTIVES: We conducted a randomized trial to test the hypothesis that mother's voice played through a pacifier-activated music player (PAM) during nonnutritive sucking would improve the development of sucking ability and promote more effective oral feeding in preterm infants.

METHODS: Preterm infants between 34 0/7 and 35 6/7 weeks' postmenstrual age, including those with brain injury, who were taking at least half their feedings enterally and less than half orally, were randomly assigned to receive 5 daily 15-minute sessions of either PAM with mother's recorded voice or no PAM, along with routine nonnutritive sucking and maternal care in both groups. Assignment was masked to the clinical team.

RESULTS: Ninety-four infants (46 and 48 in the PAM intervention and control groups, respectively) completed the study. The intervention group had significantly increased oral feeding rate (2.0 vs 0.9 mL/min, $P < .001$), oral volume intake (91.1 vs 48.1 mL/kg/d, $P = .001$), oral feeds/day (6.5 vs 4.0, $P < .001$), and faster time-to-full oral feedings (31 vs 38 d, $P = .04$) compared with controls. Weight gain and cortisol levels during the 5-day protocol were not different between groups. Average hospital stays were 20% shorter in the PAM group, but the difference was not significant ($P = .07$).

CONCLUSIONS: A PAM using mother's voice improves oral feeding skills in preterm infants without adverse effects on hormonal stress or growth.

Key Words:

• nonnutritive sucking • feeding • length of hospitalization • music therapy • maternal voice • operant conditioning

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Responses to this article

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