

Level of neighborhood deprivation predicts breastfeeding behavior in an urban birth cohort

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Background

WHO and CDC recommend exclusive breastfeeding (EBF) for the first six months following birth, with continued breastfeeding (BF) through the first year of life. Disparities in BF are found in the U.S. by maternal socio-economic position (SEP) and race, which also correlate with residential neighborhood. However, little is known about neighborhood as a predictor of BF behaviors. We analyzed data from the CDC-funded PREVAIL birth cohort in Cincinnati, OH to compare rates of BF initiation, exclusivity and duration by the SEP of urban neighborhoods, race, and income.

Methods

Demographics, BF initiation, exclusivity, and date of cessation were self-reported by the mother at baseline and periodic study visits. Home addresses were geocoded and merged with the Deprivation Index, a validated measure of census tract-level SEP, with residence classified as being high SEP (least deprived, $n=56$), low SEP (most deprived, $n=63$) or the middle SEP quartiles of deprivation score ($n=126$).

Results

Residents in high SEP neighborhoods were 86% white, median household income $\geq \$50,000$, while low SEP neighborhoods were 86% Black, median income $\leq \$25,000$. Compared with high SEP neighborhoods, mothers in low SEP neighborhoods were less likely to initiate BF (OR=0.15, $p=0.004$), practice EBF at 6 weeks (OR=0.21, $p<0.001$) and BF at 1 year (OR=0.32, $p=0.023$). Models including neighborhood SEP were concordant with those using race and income for all outcomes.

Conclusion

In the PREVAIL cohort, residence in a low-SEP neighborhood predicted key breastfeeding behaviors. In the U.S. and elsewhere, breastfeeding advocates should consider low-SEP neighborhoods as potential foci for breastfeeding promotion, protection, and support.