

P02

UNHEALTHY PARTNER RELATIONSHIPS MAY INDIRECTLY CONTRIBUTE TO EARLY CHILDHOOD OBESITY

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Background Curtailed sleep (shorter than average sleep duration) in a child's first 1,000 days of life is associated with early childhood obesity. Children sharing a room with a parent, compared to independent sleepers, have less nighttime sleep, shorter sleep stretches, and unsafe sleep practices. The goal is to optimize children's sleep duration and consolidation. Empirical examination of children's sleep behaviors in real-world, population-based samples is limited. From a diverse sample of U.S. families, we deconstructed the mechanisms for bedsharing behaviors. We hypothesize that unhealthy relationships with family members and partners, and nurturing behaviors, are associated with bedsharing.

Methods This analysis included 4,539 U.S. mother-child dyads actively enrolled in the Parents as Teachers (PAT) home visiting program July 2015 through July 2020 from affiliate sites meeting the highest programmatic quality standards. Exclusion criteria due to potential confounding consisted of: substance abuse, child abuse, incarceration, unstable housing, and mental illness, or missing data on the outcome variable. In a multivariable logistic regression model examining the outcome of bedsharing 'sometimes' or 'always' compared to 'never,' we investigated maternal relationships with family, partners, and maternal nurturing as scored lower than the target on the Life Skills Progression instrument, while controlling for low income, low education, young parent (< age 21), multiple children younger than age six, single parent, first time parent, child's age, and number of home visits.

Results In our sample of children ages 0 to 4 years, 44.8% bedshare. Our sample included: 10.5% young parents, 25.7% multiple children younger than six, 19.4% single parents; 22.8% first time parents, 35.5% low education, 71.7% low income, and 10.4%, 14.9%, and 6.3% respectively scoring less than target on the quality of the family and partner relationships, and nurturing scales. Mothers scoring low on the quality of the partner relationship are more likely to bedshare (aOR: 1.3 (95% CI: 1.1–1.6)); quality of the family relationship, and nurturing scores were not statistically significant (model c-statistic: 0.59).

Conclusion Women with multiple partners, violent relationships, who have lost contact with partners, have frequent verbal fights with partners, or who have inconsistent or conditional partner support are more likely to bedshare. Addressing these social determinants of health should be a priority before addressing parenting behaviors.

P03

DECONSTRUCTING RISK FACTORS FOR EARLY CHILDHOOD OBESITY IN A POPULATION-BASED SAMPLE

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Background A responsive parenting intervention was found to mitigate behaviors that contribute to early childhood obesity: after intervention, mothers were less likely to pressure infants to finish a bottle, use food to soothe, or put their baby to bed with a bottle. However, whether these findings translate to real-world home environments is uncertain given the intervention sample was largely White and well-educated, with incomes greater than \$50,000. We hypothesize there are mechanistic barriers to responsive parenting behaviors among diverse U.S. families; specifically, low maternal nurturing, low discipline, and low support of child development.

Methods This analysis included 7,407 U.S. mother-child dyads enrolled in the Parents as Teachers (PAT) home visiting program July 2015 through July 2020 from affiliate sites meeting the highest programmatic quality standards. Exclusion criteria due to avoid potential confounding consisted of: substance abuse, domestic violence, child abuse, incarceration, unstable housing, and mental illness, or missing data outcome variable data. In a multivariable logistic regression model examining the outcome of putting the baby to bed with a bottle 'sometimes' or 'always' compared to 'never,' we investigated maternal nurturing, discipline, and support of development as scored lower than the target on the Life Skills Progression instrument, while controlling for low income, low education, young parent (< age 21), multiple children younger than six years of age, single parent, first time parent, child's age, and number of home visits.

Results In our sample of children ages 0 to 4 years, 19.5% have been put to bed with a bottle. Our sample included: 9.0% young parents, 26.1% multiple children younger than six, 17.3% single parents; 21.8% first time parents, 32.4% low education, 69.6% low income, and 5.9%, 11.9%, and 19.0% respectively scoring less than target on nurturing, discipline, and support of development. Mothers scoring low on support of development compared to scoring in the target range were more likely to put the baby to bed with a bottle (aOR: 1.3 (95% CI: 1.1–1.6)) sometimes or always versus never; nurturing and discipline scores were not statistically significant (model c-statistic: 0.66).

Conclusion Maternal gaps in knowledge of child development, unrealistic expectations, or a passive parental role are independently associated with bottle use behaviors related to early childhood obesity. Home visiting programs such as PAT that reach a diverse population, are scaled nationally, and address these values and behaviors also have the potential to help mitigate early childhood obesity.

P04

ASSOCIATION BETWEEN BREASTFEEDING DURATION AND COGNITIVE DEVELOPMENT UP TO AGE 14 AMONG CHILDREN FROM THE UK MILLENNIUM COHORT STUDY

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Background Duration of breastfeeding is associated with improved cognitive development, but it is unclear whether this relationship is real or due to confounding. This study evaluates how much of the observed association is explained by confounding of socioeconomic position (SEP) and maternal cognitive ability.

Methods Data for 6,421 singleton children, born in 2000–2002 and followed up to 14 years of age as part of the UK Millennium Cohort Study, were analysed. Mothers reported breastfeeding duration, and children's cognitive abilities were assessed at 5, 7, 11, and 14 years using validated measures. Standardised verbal (age 5 to 14) and spatial (age 5 to 11) cognitive scores were compared across groups of breastfeeding using multivariable linear regression models, adjusting for SEP, maternal cognitive ability, and other confounders/mediators.

Results At age 5, longer breastfeeding duration showed a graded association with higher verbal cognitive scores (coefficient, ≥ 12 months vs never breastfed: 0.34; 95%CI: 0.25 to 0.44). Adjustment for SEP approximately halved the effect sizes and further adjustment for maternal cognitive scores removed the remaining association (coefficient: 0.06; 95%CI: -0.03 to 0.14). Findings were similar for ages 7 and 11 but not for age 14, in which the score of those who breastfed for ≥ 12 months remained 0.20 s.d. (95%CI: 0.08 to 0.31) higher than the score of those never breastfed, after full adjustment. The crude results for spatial scores at age 5 showed that participants breastfed for ≥ 12 months scored 0.21 s.d. (95%CI: 0.12 to 0.31) higher than those never breastfed. After full adjustment, the differences vanished (coefficient: -0.03; 95%CI: -0.12 to 0.07). However, those participants breastfed for ≥ 4 and < 6 months scored 0.10 s.d. (95%CI: 0.02 to 0.18) higher than those never breastfed, after full adjustment. Results were similar for ages 7 and 11. Exclusive breastfeeding showed similar patterns. However, even after full adjustment, a duration of ≥ 4 months was associated with improved verbal scores at age 14 (coefficient: 0.11; 95%CI: 0.02 to 0.20) and spatial scores at age 7 (coefficient: 0.09; 95%CI: 0.01 to 0.17) and 11 (coefficient: 0.09; 95%CI: 0.01 to 0.18).

Conclusion The positive associations between any breastfeeding duration and cognitive development were explained in full after adjusting for SEP and maternal cognitive scores, except at age 14 (verbal). Exclusive breastfeeding duration seemed to be associated with improved cognitive verbal scores at age 14 and spatial scores at ages 7 and 11 after full adjustment, although with modest effect sizes.

P05 PARENTS' PERSPECTIVES AND EXPERIENCES OF PARENTING AND CARING FOR YOUNG CHILDREN ON A LOW INCOME IN THE NORTH EAST SCOTLAND

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Background Families with young children, and lone parent families in particular, are at greater risk of poverty and food insecurity, compared to other UK population groups. Tackling child poverty has been a key Scottish Government policy since the introduction of the Child Poverty Act (2017) in which local authorities and health boards are required to report on their Local Child Poverty Action Plans. In north east Scotland little formal research had focussed on the lived experiences of parents and parents of infants and young children in relation to the challenges they face parenting on very low incomes, and, on questions about income maximisation strategies to alleviate child poverty. This paper focuses on some key

findings of a study undertaken to address this knowledge gap in Grampian in 2020.

Methods Parents with young children supported by an Aberdeen City-based poverty alleviation social enterprise were invited to take part in an interview study. One-to-one semi-structured telephone interviews lasting between 30–40 minutes took place during July and August 2020. Interviews were transcribed and thematically analysed.

Results Ten women took part; two participants lived with partners. Eight participants were unemployed and two worked part-time. Each had between one and five child(ren), and all had one child under school-age. Five key *impact* themes emerged, i. limited participation in paid employment; ii. insufficient social security income; iii. household food insecurity experiences; iv. practical and emotional challenges and anxiety associated with their children's overall development; and v. anxieties related to treats and special occasions. Four *coping strategy* themes were also revealed, i.e. i. budgeting and bill prioritisation; ii. self-sacrifice; iii. relying on others, and iv. keeping up appearances. Food coping strategies were explored in more depth, and two broad themes emerged: *acquisition methods* and *management techniques*.

Discussion Parents with young children experience significant barriers accessing paid employment due to caring responsibilities. Consequently, generating sufficient household income from alternate income sources, such as social security, is problematic. Parents reported devoting significant emotional and physical energy to dealing with the challenges of raising children in poverty, and it was notable that participants employed a range of sophisticated coping strategies and skill to make ends meet and maximise food resources, within highly constrained budgets. This research challenges notions that budgeting education initiatives have much to offer low income parents already well-versed on this issue. Strategies to increase their incomes seem a more effective way of alleviating their related anxieties.

P06 THE ROLE OF SOCIOECONOMIC INEQUALITIES IN TRANSITIONING TO NEUROCOGNITIVE DISORDERS; EVIDENCE FROM THE ENGLISH LONGITUDINAL STUDY OF AGEING

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Background The association between socioeconomic position (SEP) and dementia is well studied. However, scant attention has been given to the relationship with mild cognitive impairment (MCI), often considered a transient state between normal cognition and dementia. The purpose of this study was to determine the role of various SEP markers such as education and wealth on transitioning to MCI and dementia.

Methods We used nationally representative data from adults aged 50+ from the English Longitudinal Study of Ageing followed-up over a four-year period. We ascertained MCI and dementia over four years, using a validated algorithm based on physician diagnosis and lower cognitive performance (1 standard deviation below the mean) on multiple standardised tests adjusted for age and education. A Multistate Markov survival model was utilised to investigate whether different SEP markers increased the risk of specific transitions between