

OP16

IMPACT OF POVERTY AND FAMILY ADVERSITY ON ADOLESCENT HEALTH. A MULTI-TRAJECTORY ANALYSIS USING THE UK MILLENNIUM COHORT STUDY

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Background Both poverty and family adversities including domestic violence, parental mental illness and parental drug and alcohol use are associated with poor outcomes across the life course. However, the complex relationships between these exposures in childhood are unclear. We therefore assessed the clustering of trajectories of household poverty and family adversities and their impacts on child health outcomes in adolescence.

Methods We used longitudinal data from the nationally representative UK Millennium Cohort study on 11564 children born between 2000 and 2002, followed through six survey waves. Family adversities were defined here as parent reported domestic violence and abuse, parental alcohol use and parental mental illness. We used a group-based multi-trajectory cluster model to define trajectories of poverty and family adversity for children aged 9 months to 14 years. We assessed associations of these trajectories and child outcomes at age 14 years (child socioemotional behavioural problems, cognitive disability, obesity, alcohol and drug use) using multivariable logistic regression adjusting for confounders.

Results Six trajectories were identified: persistent alcohol misuse (7.7%), low poverty and family adversity (43.2%), persistent domestic violence and abuse (3.4%), persistent parental mental illness (11.9%), persistent poverty (22.6%) and poverty and parental mental illness (11.1%). Compared to the low poverty and family adversity trajectory, children in the other trajectory groups experienced worse outcomes, particularly for combined exposure to poverty and parental mental illness. Compared with children with low adversity, those in the parental mental illness and poverty group were particularly at increased risk of socioemotional behavioural problems (adjusted OR 6.4, 95% CI 5.0 - 8.3), cognitive disability (aOR 3.1, CI 2.4 - 4.2), drug use (aOR 1.7, CI 1.4 - 2.0) and obesity (aOR 1.8, CI 1.3 - 2.5).

Conclusion Over half of children in the UK grow up experiencing poverty and adversities associated with poor health in adolescence. Persistent poverty and/or persistent parental mental illness affect over four in ten UK children. The combination of both affects one in ten and is very strongly associated with adverse child outcomes, particularly poor child mental health.

OP17

WHICH INTERVENTIONS IMPROVE SLEEP DURATION IN CHILDREN? A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

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Background Adequate sleep duration in childhood has important implications for social, mental, and physical well-being. Recent evidence has demonstrated declining sleep durations in children; therefore effective interventions to improve sleep measures are needed. Despite some trials suggesting that multi-behavioural interventions promoting bed-time routines may be beneficial, the effectiveness of such interventions has not been adequately quantified. Moreover, specific themes and strategies which increase sleep duration, and by how much, have not been formally quantified.

Methods We carried out a systematic review and meta-analysis to quantify the effectiveness of sleep interventions to improve sleep duration in children within community settings (PROSPERO ID CRD42019160089). Studies involving infants under 1 year, those using medications, and targeting children with behavioural problems were excluded. We screened 11621 randomised control trials (RCT), after carrying out a search using combined text words and MeSH criteria in CENTRAL, MEDLINE, EMBASE, PSYCHINFO, Web of science, clinicaltrials.gov, and WHO trials databases. Full text screening of 341 studies identified 39 studies for data extraction. All screening was carried out independently by two reviewers using a web-based platform for systematic reviews.

Results Studies were categorised by age as follows: 20% in >1–5 years of age, 25% >5–10 years, 33% >10–15 years, 22% >15 years. The mode of delivery of most interventions was face to face (74%). The intervention setting was most commonly school based (54%), with 21% based at home. Intervention duration was less than one month in 49% of studies. Qualitative data to describe each intervention was collected using a framework based on the TIDieR checklist. We are mapping this onto behavioural frameworks (COM-B, theoretical domains framework), to categorise interventions. Our initial analysis, from 9911 participants (4719, intervention, 5192 control) from 33 studies, suggests that mean differences in interventions increase sleep duration by 11 minutes (95% CI 6, 17 mins). However, caution is needed in interpreting this overall effect size (pooled using random effects) given the considerable heterogeneity across studies ($I^2 = 91\%$). The influence of study design characteristics in explaining heterogeneity (including age of participants, duration and type of intervention) will be outlined.

Conclusion This review furthers our understanding of the most effective interventions to improve sleep duration in children and provides a platform to develop population level health interventions to improve sleep. Given challenges assimilating data, an overarching aim is to develop approaches that could be used to homogenise reporting in future RCTs in order that evidence can be summarised more easily.

OP18

MENTAL HEALTH DISORDERS AMONGST CHILDREN AND YOUNG PEOPLE INVOLVED IN FAMILY JUSTICE COURT PROCEEDINGS: A LONGITUDINAL NATIONAL DATA LINKAGE STUDY

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Background Little is known about common mental health problems of children and young people (CYP) involved with