Conclusions This review highlights that sleep may be a preferential indicator of poor mental health than screening tools for PTSD and other mental health disorders, with its lack of cultural bias towards mental health diagnoses. It also demonstrates the importance for medical professionals to actively screen for sleep disturbances in asylum-seeking, internally displaced or refugee child upon first contact. Additionally, an awareness of their underutilisation of medical services and welfare of the family network is crucially important and so a multi-faceted approach of caring for the whole family is key.

British Association for Community Child Health

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EFFECTS OF CONTINUED FOLIC ACID SUPPLEMENTATION DURING THE SECOND AND THIRD TRIMESTERS OF PREGNANCY ON CHILDREN'S NEUROCOGNITIVE DEVELOPMENT AT 11 YEARS

¹Mark Rollins, ²Aoife Caffrey, ²Helene Mc Nulty, ³Kristina Pentieva, ⁴Girijesh Prasad, ⁵Tony Cassidy, ⁶James Dornan. ¹Paediatric Department Causeway Hospital; ²NICHE, School of Biomedical Sciences, Ulster University; ³NICHE, School of Biomedical Sciences, Ulster University; ⁴Intelligent Systems Research Centre, Ulster University; ⁵Psychology Research Institute, Ulster University; ⁶Royal Jubilee Maternity Service, Belfast, N.I

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Background Peri-conceptional folic acid (FA) supplementation is known to prevent neural tube defects. It remains uncertain whether continuing FA after the first trimester has benefits for offspring development. A previously published follow up study of Mothers who had participated in a randomized trial of FA Supplementation in the Second and Third Trimesters (FASSTT) in pregnancy and who had received 400 micrograms/day FA or placebo from the 14th gestational week until the end of pregnancy showed their offspring at both 3 and 7 years scored significantly higher than the placebo group in word reasoning and cognition.

Objectives Follow up investigation of 11 year old children, whose Mothers had participated in a randomized trial of FA Supplementation in the Second and Third Trimesters (FASSTT) in pregnancy and received 400 micrograms/day FA or placebo from the 14th gestational week to determine if previous improvement in Cognitive performance and brain function persists in this age group.

Methods Mother-child pairs who undertook the FASSTT trial (healthy pregnant women aged 18–35 years with singleton pregnancy) and who had taken 400 micrograms/day of FA in the first trimester were randomized to receive FA supplements or placebo until the end of pregnancy. When the child was 11 years old Mother-child pairs were recruited by invitation to undergo assessment of the child's Cognitive performance by the Wechsler Intelligence Scale for Children (WISC-IV). Assessors were blinded to the treatment allocation of the Mother during the FASSTT trial. In a sub sample of participants, magnetoencephalographic (MEG) brain imaging was performed to assess brain functioning through estimating neuronal activity in relation to semantic processing of language. Related covariates including general health and lifestyle measures, socioeconomic status, anthropometry including BMI status, B-vitamin biomarkers and nutritional dietary analysis

were evaluated. Statistical analysis was performed using the Statistical package for the Social Services software.

Results Of the 119 mother-child pairs in the FASSTT trial, 68 children were assessed for neurocognitive performance at 11-year follow up (Dec 2017 to Nov 2018). Children of mothers randomized to FA compared with placebo scored significantly higher in two Processing Speed tests i.e. symbol search (mean difference 2.9 points, 95% CI 0.3 to 5.5, $p=0.03$) and cancellation (11.3 points, 2.5 to 20.1, $p=0.04$), whereas the positive effect on Verbal Comprehension was significant in girls only (6.5 points, 1.2 to 11.8, $p=0.03$).

MEG assessment of neuronal responses to a language task showed increased power at the Beta (13–30 Hz, $p=0.01$) and High Gamma (49–70 Hz, $p=0.04$) bands in children from FA-supplemented mothers, suggesting more efficient semantic processing of language.

Conclusions Continued FA supplementation in pregnancy beyond the early period currently recommended to prevent NTD, can benefit neurocognitive development of the child. MEG provides a non-invasive tool in paediatric research to objectively assess functional brain activity in response to nutrition and other interventions. Our findings add considerably to the existing evidence that have linked maternal folate status in pregnancy with neurocognitive outcomes in the older child. This evidence reinforces our previous findings in these children and suggest that continued FA intervention in pregnancy beyond the early period is beneficial to future neurocognitive development.

Quality Improvement and Patient Safety

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TO ACHIEVE A FULL, QUALITY AND INTERPRETABLE ROUTINE EEG RECORDING IN 95% OF ALL CHILDREN AND YOUNG PEOPLE FOR WHOM AN EEG IS REQUESTED

Helen Sneath, Maria Moran, Laura Ashmore, James Baird, Ann Brown, Denise Crozier, Katherine Martin, Manish Prasad. Nottingham University Hospitals Trust

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Background There is an estimated 1.2 million children, young people and adults with a learning disability in England, of which approximately 10–17% display challenging behaviour. Additionally, 1 in 3 also have epilepsy, with prevalence ranging from 6–50% depending on the severity of the learning disability. An EEG (Electroencephalogram) is therefore often required to aid in the diagnosis, but this can be difficult to achieve in this cohort of patients due to levels of understanding and cooperation.

Additionally, neurotypical children referred for clinical procedures often encounter high levels of anxiety and distress and those who are not adequately prepared for health interventions are more likely to have poor experiences as well as increased anxiety. This can result in fearfulness of healthcare professionals and failure to attend follow-up appointments.

Objectives To investigate ways to alter our approach and improve the experience for patients attending for EEG, thereby improving the quality of the recorded EEG to optimise the accuracy of epilepsy diagnosis within the service.

To reduce the waiting list times from referral to EEG recording from 6 weeks to 4 weeks in line with NICE guidance (NICE CG137, 1.6.3).