

**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 11YEARS

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**Background** Peri-conceptual 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 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

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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).

**Methods** After training and attendance at the RCPCH Epilepsy Quality Improvement Programme (EQIP), a driver diagram, fishbone analysis, 5-whys methodology and patient questionnaire were used to understand the patient pathway. An EEG leaflet explaining the procedure is already sent to patients. However, it was noted that there was little information or avenue for families to ask questions or to allay fears and anxieties before attending. This highlighted the need for improved preparation in addition to the standard EEG leaflet before arrival to the hospital.

A Model for Improvement with 4 PDSA (Plan, Do, Study, Act) cycles was employed to test change. Patient families were contacted several days before the EEG to discuss needs, anxieties and ways of working that might improve the experience and thereby the quality of the EEG recording eg room layout, staff in uniform, toys, Wifi availability etc.

The later PDSA cycles highlighted logistical problems in telephoning all paediatric patients. Therefore, an addendum to the patient leaflet was sent to the patient. This signposted useful online material and other resources. Department photographs were also available on request.

**Results** An improvement was seen in the number of quality EEGs recorded. The percentage of paediatric patients with full quality EEGs was seen to be consistently above 95% after introduction of the telephone call and leaflet addendum. No EEG recordings were abandoned. Very favourable feedback was gained from families about increased flexibility to tailor the EEG investigation. The Covid-19 pandemic unfortunately affected EEG wait times.

This was a multidisciplinary quality improvement project resulting in rewarding, collaborative links to enable future dialogue and multidisciplinary working.

**Conclusions** Quality of EEG recordings was improved by increased communication between families before appointment, either by discussion over the phone or by signposting to online resources

## Quality Improvement and Patient Safety

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### VIRTUAL CONSULTATIONS IN PAEDIATRICS – WHAT HAVE WE LEARNT?

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**Background** With the current pandemic there have been many changes in the way we work. The most obvious one is use of remote clinics with the likelihood that this would remain with us in the long term. There has been widespread acceptance of this way of working in a very short time with benefits in cost efficiency and patient attendance described. Remote consultations in paediatrics has its own challenges and this would be a good time to analyse how it works, the practical challenges and to see if any changes are needed with the how it is provided in the future.

**Objectives** To get feedback from paediatricians regarding their use of remote consultations so that we could plan our services for future

**Methods** A questionnaire Survey was sent to paediatricians regarding their experience of use of virtual consultations and their responses were analysed

**Results** 66 doctors responded to request for feedback and provided answers to the questions. 78% of the respondents were paediatric consultants, 6% were neonatal consultants, 6% community consultants and 10% were specialist registrars. 94% of the respondents hadn't done remote clinics before the pandemic. Over 60% of the respondents had done more than 50% of their outpatient clinics over the last one year remotely. 75% of the respondents also provide specialist clinics apart from general clinics. 15% of the respondents used only video clinics, 28% only telephone clinics and 50% did both video and telephone clinics. 27% of the general paediatric patients and 39% of the speciality paediatric patients seen remotely were called in for a face to face consultation subsequently. Main problems with telephone clinics were calls not being answered, safeguarding concerns not being evident, difficulty in diagnosis and patient rapport. Amongst video clinic users, difficulty with use of technology and network issues were the most frequent problems encountered. 55% would prefer face to face clinics in comparison to remote clinics. 73% used NHS attend anywhere platform for video consultations. The overall prediction was that 37% of the general and 31% of the speciality paediatric outpatient consultations could be done remotely in future. 55% of the respondents reported that the non-attendance rate has gone down with use of virtual clinics

**Conclusions** In our survey, virtual consultations were done by most paediatricians over the last 1 year with the majority doing a mix of video and telephone clinics. There were practical difficulties with use of both telephone and videos amongst the respondents with approximately a third of the patients being called for face to face consultations subsequently. More than half of the group would prefer face to face over virtual consultations as it ensures better communication, rapport, review of safeguarding concerns and better diagnostic results. However, there is a vast proportion of consultations which could be easily completed remotely thereby reducing patient journeys and improving attendance rate. An agreed list of conditions where remote consultations are equally effective would be a helpful way forward along with attempts to improve current technology

## RCPCH Trainees Committee

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### MUSIC, PHOTOS & LOTS OF BANTER: BRINGING THE WIDER PAEDIATRIC FAMILY TOGETHER THROUGH VIRTUAL QUIZ NIGHTS DURING THE COVID-19 PANDEMIC

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**Background** After the onset of the COVID-19 pandemic, the government issued national lockdown restrictions. This was soon after the March 2020 changeover, meaning many paediatric trainees were working in new, unfamiliar hospitals with strict social distancing rules. This impaired the normal