DPT

DEVELOPMENTAL PEDIATRICS TODAY

November 2021

Monthly e-Newsletter of IAP Chapter of Neurodevelopmental Pediatrics

Inside

Editorial

'Only disability is the inability to see the ability'

Respected Seniors and dear Friends,

Greetings from Neurodevelopmental Chapter of IAP! Hope all of you have enjoyed the festive season yet keeping safe.

We still can't lower our guard since Omicron cases are increasing in India and again some states have declared night curfew. About 90% of adult population in India has received a single dose of the Vaccine and 61%of eligible population is fully vaccinated. World's first DNA Covid 19 Vaccine and nasal Vaccine to be launched in India soon. As per the reports from South Africa, Omicron variant seems to spread very fast but causes mild infection. From 1st January children 15 to18 years will be able to register for Covid Vaccination on Cowin app. Booster dose has been approved in India for healthcare professionals and for people above 60 years, provided 9 months have elapsed after 2nd dose. So, we continue to fight against the Pandemic. Covid wave due to Omicron in South Africa where the first case was reported has dropped by nearly 40% in a week. Whereas the USA, UK and rest of Europe are still facing the third wave with average 2.66 lac new cases/week in USA and more than a lac cases/day in England.

November is the awareness month for prematurity, Epilepsy, and good nutrition. All the three have huge impact on child development and should be addressed appropriately. We have some journal scans and writeups addressing these topics.

Wish you all a Merry Christmas and a happy new year!

Long live our Chapter!

Long live IAP!

Dr. Lata Bhat

Chief Editor

Chairperson's Message

Dear Readers,

Season's Greetings!

Well, we are at the closing end of 2021. It is time to reflect and time to harvest all the knowledge we have gathered over the year, and to sharpen our services for our children of special needs.

Our monthly DPT newsletter have kept up with the themes of different awareness days as a reminder, and many of the CDC's have kept up with activities along these lines. We have had record number of online sharing of the knowledge and activities by our members. My sincere gratitude for their efforts and commitment for knowledge sharing and parental support.

The month of November deals with two very important Days namely Prematurity Day and Epilepsy Day. Preterm births carry an increased risk of poor neurodevelopmental outcome, with increased risk of cerebral palsy and sensory impairments. Incidence of epilepsy is also high in children born prematurely especially in those with neonatal seizures. As we are working on prevention and care, we have COVID 19 disrupting this chain and it is time to be vigilant for psychological impacts and neurodevelopmental outcome of these children. Zero separation is the theme of this year's Prematurity Day, highlighting, understanding and supporting the child in the context of the family and parenteral care. Much is in our hands in preventing a delay from becoming a disability by a neuro-constructive approach.

This issue of the Newsletter deals with some of the above thoughts. Wish you happy reading.

Happy reading.

Dr. Shabina Ahmed MD, FIAP
National Chairperson
Neurodevelopmental Pediatrics Chapter of IAP

Snippets from the Secretary

"Disability is a matter of perception." - Martina Navratilova

Respected Seniors and Dear Friends,

Seasons greetings from the IAP Chapter of Neuro-developmental Pediatrics. Hope this issue of newsletter find you all and your families in good health.

The year is coming to an end and we are in the same deja vu state like last year with the the Covid-19 pandemic resurgence being around the corner. Even then, the year 2021 has been a year of resilience of the human spirit and has been filled with examples changed the way we look at things in our everyday life in ways more than one. The chapter conducted fellowship examination in the first week of November in offline format at Sir Ganga Ram Hospital, New Delhi for the 2020 batch of fellowship students. The fresh batch of fellowship students have started their course at their respective centers and I take this opportunity to wish them a great learning journey in the coming year.

The chapter is planning its annual national conference in the month of December on the online platform of dIAP with a host of eminent national and international speakers who will be speaking on a wide range of topics related to developmental pediatrics. The theme chosen this year is ABCD 2.0 : Acquiring knowledge, Building capacity, Compassionate care, Discussing practices. Sessions are being planned with inputs from various child development centers across the country to discuss the issues related to neurodevelopment during the pandemic.

The month has two important world health themes : Epilepsy awareness month and Prematurity awareness month with World prematurity day on 17 Nov. The theme for World Prematurity Day is : ZERO SEPARATION, ACT NOW! Keep parents and babies born soon together. Prematurity is the single biggest contributor to neuro-developmental problems in children and is critical for progress on Millennium Development Goals for child survival and maternal health. We have some interesting journal scans on the two subjects and wish our readers happy reading.

"The only disability in life is a bad attitude." - Scott Hamilton

Long live IAP,

Jai Hind!

Wg Cdr (Dr) KS Multani
National Secretary

Neurodevelopmental Follow Up of High risk preterm Neonates : An Update

Prof. (Dr). Neelam Kler, Chairperson
Dr Pankaj Garg, Senior Consultant
Dr Nidhi Gupta, Consultant for follow up of High-Risk Neonates

Background: Infants born extreme preterm are at greater risk of neurodevelopment impairment compared to their term counterparts and streamlining neonatal follow ups to include multidisciplinary clinics forms part of most healthcare systems worldwide (NICE Guideline (UK)- 2017, AAP, NNF guidelines 2011). NICE guidelines were published in 2017 and were based on best evidence to improve neonatal outcomes in this high-risk group.

Preterms are at greater risk of following problems:

1. Motor: especially if Grade III/IV Intraventricular Haemorrhage, Periventricular Leukomalacia, Necrotising Enterocolitis needing Surgery and Sepsis.
2. Cognition: Executive function-Memory, Planning, Time management etc
3. Speech: Mainly expressive, mainly male neonates
4. Hearing: especially extreme preterm (<28 weeks gestation)
5. Vision: Retinopathy of prematurity, refractive errors, strabismus etc
6. Feeding difficulties: difficulties with chewing, suck and swallowing, fussy eater

Who to follow up?

Guidelines Differ slightly but mainly the following:

- All babies less than 32+6 weeks gestation
- 33 weeks gestation and one or more of the following with risk factors as entailed below:
- Neurological-Stage II/III HIE, Meningitis, Seizures, Brain lesion on Neuroimaging
- Respiratory-BPD, Mechanical ventilation more than 5 days
- Cardiac-Complex Congenital Heart Disease, Shock
- Metabolic-Severe Hyperbilirubinemia nearing Exchange
- Infections- Probable or Definitive Sepsis, Congenital Infections
- GI- NEC, Congenital anomaly needing Surgical repair
- Small for gestational age – birth weight<10th centile
- Any baby deemed at risk of developmental delay

Benefits: Neurodevelopmental surveillance by a multidisciplinary team ensures

- Early identification of developmental delay
- Early intervention and timely referral where needed-Neurologist, Occupational/Physiotherapist, Audiologist etc.
- Neuroplasticity of the brain is maximum in the first year of life ("what fires together wires together")
- Parental support and education
- Readiness for school
- Less chances of losing our follow ups and benchmarking for our neonatal care

Goal – Intact survival (improving outcomes not just survival)

Proposed Discharge Pathway for High Risk Preterm neonates

Time points (Corrected age if preterm < 37+0 weeks)	Focus	Assessments by MDT
Nutrition, Growth, Immunizations, Medications reviewed at each visit Early Intervention and frequency of visits tailored to baby's needs		
1 month	Visual Auditory Tone / motor skills	ROP Screen * BERA Standardised Neurological Examination (HNNE) or other / Prechtl assessment of General Movement
3 months	Visual Auditory Tone / motor skills Head circumference and weight	ROP Screen* / Visual Evoked Potential (VEP) if poor visual tracking BERA if concerns Standardised Neurological Examination (HINE) or other & Prechtl assessment of General Movement
6 months	Motor Vision	Standardised Neurological Examination (HINE) or other & Prechtl assessment of general movement Assessment for refractive errors / persisting strabismus
12, 18 and 24 months	Motor Cognition and Language Auditory Vision Social communication	HINE GMFCS (Gross Motor Function Classification System) at 2 years if Cerebral Palsy Formal Developmental test – BSID or Griffiths or DASII BERA / Formal hearing test Assessment for refractive errors / persisting strabismus MCHAT (16-30months)
*ROP screen is done as per Chronological age and the first screen should be done by 4 weeks from birth.		

Vision assessment

ROP (Retinopathy of Prematurity) screen till 44 weeks PMA or retina fully vascularised

- (NNF) -<=34 weeks GA and/or <1750 grams birth weight OR 34-36+6 weeks with risk factors
- RBSK-recommends in all preterms less than or equal to 2000 grams at birth and if sepsis/ supplemental oxygen if weighing more than 2000 grams or in case of concerns.

Hearing assessment

IAP recommends Hearing screen Oto Acoustic Emission (OAE) to be done before one month of age, if fail rescreening should be done with appropriate assessment at 6 weeks of age or 1st immunization visit. Aim is to diagnose before 3 months and start intervention before 6 months of age. BERA (Brainstem Evoked Response Audiometry) is recommended in high risk neonates.

BERA(Brainstem Evoked Response Audiometry)/ Automated Auditory Brainstem Response (AABR)

This is a useful non-invasive objective assessment of hearing and must be done before the age of 3 months. Whilst the OAE indicates function of Cochlea, this tests beyond the level of Cochlea providing information on auditory pathway including the brainstem. A click stimulus is provided through the earphones inserted in baby's ear and the electric potentials generated by the auditory pathway are measured by electrodes placed on scalp with the help of a computer. Seven waveforms are produced I-VII and Wave V is the most commonly analysed.

General Movement Assessment Prechtl Assessment of General movements- needs formal training. It is a Qualitative video based assessment of spontaneously generated movements. Systematic reviews have shown it to be 98% sensitivity of detecting Cerebral Palsy before age of 5 months and more cost effective than MRI Brain. We at Sir Ganga Ram Hospital routinely follow this for all our high risk babies.

Hammersmith Neonatal Neurological Examination (HNNE)

1. Abridged (screener form)-12 items-If more than two fall in the grey area, complete assessment to be done
2. Full assessment -34 items -6 categories (Gives Optimality score and hence more objective)

- Tone and Tone pattern
- Reflex items
- Movement
- Abnormal signs
- Behaviour/auditory and vision

Hammersmith Infant Neurological Examination (HINE) -2 to 24 months of age.

Includes-Cranial Nerves, Reflexes, Movements, Tone, Posture and Reflexes with 26 items in total. It has a high predictive value for later development of Cerebral Palsy in at risk infants.

Bayley Scales of Infancy and Toddler Development (BSID) - is one of the gold standard formal developmental test for use between the age of 16 days to 3 years 6 months. It includes Cognitive, Language (Receptive and Expressive), Motor (Gross and Fine), Social-emotional and adaptive skills. BSID III (2006) is now being replaced by the 4th edition – (released 2019) and is being validated worldwide currently including India. This needs formal training to administer and, on an average, takes 45-60 minutes to administer. One of the key differences is the dichotomous scoring of Yes/No has been replaced by 3 options to each question with 0,1,2 scoring and 1 referring to an emerging skill. The new edition is also going to take less time to score etc.

The Developmental Assessment Scale for Indian Infants (DASII)- The Developmental Assessment Scale for Indian Infants (DASII) is an Indian adaptation of Bayley Scales of Infancy and Toddler Development. It is used to test motor (gross and fine) and mental development (cognition, personal and social skills) from birth to 30 months of age.

Screening Tools for Development

1. ASQ Questionnaires

Due to recent COVID times, in person appointment has been difficult. In such cases the good old ASQ (Ages and Stages Questionnaire) (ASQ III) is easily used between the ages of 2-66 months and can be supplemented by a video based assessment. They are easy to score and have cut offs for each domain to identify areas of concern.

2.Denver Development Screening Tool (DDST)- easy to perform till the age of 6 years, any deviation from normal warrants a formal developmental test like Bayley Scales of Infancy Toddler and Development.

3.Trivandrum Development Screening Chart-(TDSC)-is another simple tool easily used up to 6 years of age.

Behavioural (Autism)

- Screening - MCHAT (Modified Checklist for Autism in toddlers) at 16-30 months.
- Diagnostic– ISAA (Indian Standard Assessment for Autism), INDT-ASD (INCLEN Diagnostic Tool for Autism Spectrum Disorder) and others

ADOS (Autism Diagnostic Observation Schedule) is considered the gold standard. There are many other tools.

Red Flags (prompting a referral to a Developmental Specialist Team)
International consensus on early diagnostic features of Cerebral Palsy 2020
Persistent head lag beyond 4 months
Fisting of hands beyond 4 months
Consistent asymmetry of posture and movements beyond 4 months
Tightness legs between 6-12 months (does not bring toes to mouth during changing of diaper)
Inability to sit without support beyond 9 months
Hand preference before the age of 12 months

Simple Early Intervention Strategies that may be useful in Neonates

(Have to be customized to each baby's needs)	
1. Skin to skin contact	Benefits cannot be underestimated and range from thermal and cardiorespiratory stability, increased breastfeeding rates, better bonding, and reduced parental anxiety
2. Posture support	Nesting, frequent change of positions in sick neonate,
3. Feeding- Make it a positive experience for the babies	Encouraging Non Nutritive suck for babies prior to tube feeds when suck/swallow is not fully established Singing during feeding, tube feeding whilst parent holds baby. Feeding difficulties: Cochrane (2016) - oro motor stimulation exercises reduce transition time to exclusive oral feeds and overall hospital stay (the number of participants were small). However, not all babies need oro motor stimulation exercises - individualized approach is the key. Gastrostomy should be considered where there is risk of aspiration.
4. Auditory stimulation	Talk to the baby as you would to an adult explaining all that you do
5. Face time /Visual stimulation	Face of the parent is probably the best toy for the baby. High contrast targets (black and white) are recommended.

Conclusion

1. A robust multidisciplinary follow up programme is needed for all neonatal units to help maximize the developmental potential given neuroplasticity of the brain.
2. Whilst stimulation is important, overstimulation should be avoided- know when to stop- signs like sneezing, crying, falling to sleep.
3. Government of India has set up several District Early Intervention Centres (DEICs) under the Rashtriya Bal Swasthya Karyakram (RBSK). These provide facilities for medical and neurodevelopmental follow up under one roof.

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Epilepsy and Autism Spectrum Disorder

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Prevalence and risk factors :

The co-occurrence of epilepsy and autism spectrum disorder (ASD) has been well-established through large-scale prevalence studies .The rate of epilepsy in individuals with an ASD diagnosis ranges from 6% to 27%, with no single type of epilepsy more consistently reported. This variable range in rates is due to the heterogeneity of the groups being studied, particularly with regard to cognitive function and age. Additionally, methodological differences in the measures used to diagnose ASD, from retrospective chart reviews to prospective parent questionnaires and clinician-performed diagnostic assessments, lead to differences in prevalence rates. Several factors have been associated with a greater risk of developing epilepsy, including regression of skills (language and social function) and female sex. However, the single most important risk factor is overall cognitive function. A meta-analysis by Amiet and colleagues found that epilepsy rates increased as IQ decreased. The highest rate of epilepsy (46%) occurred in the group with an IQ <40.. This strong relationship between epilepsy and cognition was replicated by Viscidi and colleagues in a sample of 5185 children of ASD, where they demonstrated that in children over age 10, for every one standard deviation increase in IQ, the odds of having epilepsy decreased by 47%.6 Furthermore, they found that the male-to-female ratio in ASD with epilepsy was 2:1, compared with the 3.5:1 ratio in non-epilepsy ASD. Age is the only other risk factor strongly associated with the development of seizures in individuals with ASD. Several studies have suggested there are 2 peaks of epilepsy, one in early childhood and a second in adolescence. Other large cross-sectional studies have found that the risk of epilepsy increases with age, with peak in early adolescence. In a population of children diagnosed as having ASD in the first decade, most seizures developed after age 10, and the risk of developing epilepsy continued to increase into the third decade of life. In the cross-sectional study by Viscidi and colleagues, the average prevalence of epilepsy was 12% in children with ASD, with the rate reaching 26% by adolescence. Furthermore, in a meta-analysis by Woolfenden, the pooled estimate of developing epilepsy was highest, 23.7%, in those with intellectual disability and age >12 years. To summarize the findings from these large recent studies, the prevalence of epilepsy in ASD is greatest among those with intellectual disability and in children in the second decade of life, and

the risk of developing epilepsy continues into adulthood. Genetic corelation of Epilepsy and ASD :

ASD is a heritable disorder, as has been identified convincingly in twin and sibling studies. With advances in genetic testing methods over the past decade, and routine use of chromosomal microarray analysis and, now, whole-exome and -genome sequencing, more than 30% of individuals with ASD have identifiable genetic correlates. Genetic causes of ASD include well-recognized single gene disorders, such as Fragile X and tuberous sclerosis complex, as well as de novo copy number variations and single gene mutations .Many of these single gene disorders and de novo variations are highly penetrant for comorbid epilepsy and intellectual disability, leading to the coining of the term "syndromic autism." Not surprisingly, the genes implicated in many of the syndromes and variants cause impairments at the level of the synapse, both structural and functional, thereby likely serving as a causative mechanism for epilepsy and for atypical development. For instance, copy-number variation alterations in genomic regions or associated genes were recently reported in children with continuous spike and waves during slow-wave sleep syndrome and Landau-Kleffner syndrome, suggesting genetic pathway overlaps may exist between ASD and this group of epilepsies. Specific mutations in the GRIN2A gene have been associated with Landau-Kleffner syndrome and are also associated with neurodevelopmental disorders, such as ASD. Electroencephalogram (EEG) corelation : There has been tremendous research interest in the identification of EEG biomarkers that could identify biologic correlates of ASD. The hope is that these biological correlates in ASD can predict outcomes and inform treatment monitoring. EEG is not only a more feasible but it also provides a temporally sensitive measures cortical connectivity, likely to be aberrant in ASD. But because of the wide range in ages and phenotype of the ASD group being studied, no single EEG biomarker has been identified that consistently distinguishes individuals with ASD from those without ASD. In the most comprehensive review of resting-state EEG studies in ASD, Wang and colleagues identified a possible "U-shaped" profile of EEG power alterations which results from abnormal GABAergic tone in inhibitory circuits. Specific EEG finding in 15 q syndrome: EEG can also inform neurophysiological mechanisms of disease in high-risk genetic variants, for instance, in duplications on chromosome 15q11.2-q13.1. A subgroup of children exhibit a classic EEG pattern of excessive beta frequency activity, a feature often found in patients treated with GABAergic medications such as benzodiazepines. This signature in Dup15q syndrome likely reflects the upregulation of several GABA receptor genes located in the duplicated region. Studies are currently underway to better characterize this excessive beta activity, in order to understand the mechanism underlying this EEG pattern and to investigate whether this EEG signature relates to or predicts clinical outcomes, particularly the development of epilepsy or ASD. Furthermore, recent efforts have been focused on relating specific EEG patterns to core deficits or individual behaviors within ASD, in order to facilitate clinical stratification. In fact, EEG patterns could be extremely informative in the separation of intellectual disability from ASD in genetic syndromes where the 2 are highly related. Failure to identify consistently predictive patterns of ASD diagnosis stems from the fact that a variety of genetic variants contribute to the development of ASD in infant siblings, each of which may result in a unique electrophysiological signature that represents distinctive neural mechanisms of disease. Nevertheless, if electrophysiological

patterns can reliably place infants into risk categories, such categorization could facilitate the initiation of early

interventions, prior to the onset of symptoms, which could enhance cognitive and behavioural outcomes. The potential relationship, if any, between these electrophysiological patterns and the development of epilepsy has not yet been investigated. If EEG patterns can detect risk for developing ASD and can be tracked reliably across development, it seems feasible that quantitative EEG could be used to inform treatment outcomes, especially when standardized clinical measures are less sensitive to change over short intervals. Only one study has attempted to integrate EEG measures with behavioural outcomes after intervention. Dawson and colleagues studied a standardized intervention called the Early Start Denver Model in toddlers with ASD. They found that after 2 years of treatment, toddlers receiving the treatment demonstrated an EEG pattern (based on an alpha: theta ratio) similar to that of typically developing children. Relationship of ASD with Epileptic Encephalopathy : Epileptic encephalopathy is a conceptual term suggesting that epileptic activity, seizures, or interictal epileptiform discharges can lead to cognitive and behavioural impairment above and beyond what might be expected from the underlying pathology. Because of case reports of children with early onset seizures and autistic regression, parallels have been drawn between children with "autistic regression" and Landau-Kleffner syndrome, an epileptic encephalopathy in which children (usually after age 3) lose language skills in association with an epileptiform EEG showing continuous spike-and-wave pattern in sleep. In clinical disorders where regression, epilepsy, and ASD overlap, multiple variables need to be considered, such as type of regression (language versus autistic), age of onset of seizures or epileptiform activity, and the location, orientation, and quantity of the epileptiform activity, which can guide clinical management. There are 3 major differences between children with autistic regression and those with an epileptic encephalopathy such as Landau-Kleffner syndrome. The first is age of onset. The mean age of language or social communication regression in ASD is 18 months to 24 months, and over 90% of children with ASD who undergo a regression do so before age 3 years. In Landau-Kleffner syndrome, only 12% to 14% of children regress before age 3 years. Age at regression may explain the second difference, which lies in the features of language loss. Because autistic regression occurs in a stage of development that precedes the emergence of full phrased speech, the regression can be clinically subtle (eg, loss of single words, decreased gesturing), whereas in Landau-Kleffner syndrome the loss is dramatic, with loss of fully developed language. The second difference lies in the behavioural profiles. In ASD, regression affects social communication skills, repetitive behaviours, and language, and it results in the behavioral profile that typifies ASD. In Landau-Kleffner syndrome, regression primarily affects language, whereas behavioural abnormalities are much less pervasive and may be attributable to the inability to communicate or cognitive regression. Lastly, there are differences in the EEG findings. In ASD, the epileptiform activity associated with regression is characterized by centrotemporal spikes that can be infrequent and intermittent. In Landau-Kleffner syndrome, the EEG is characterized by frequent temporoparietal spikes, strikingly activated by slow sleep and with the EEG pattern of electrical status epilepticus of sleep. Furthermore, it has been shown that children with isolated language regression, as would be seen in Landau-Kleffner syndrome, have a significantly

higher frequency of epileptic disorders (60%) versus those with language regression in the context of autistic regression (31%).

Despite studies showing that the prevalence of epileptic disorders in individuals with ASD and no clinical history of seizures range from 6% to 60%, there is significant controversy regarding the specificity of these findings to the ASD phenotype, with or without regression. On the basis of the current literature, the prognostic implications of epileptic disorders in individuals with ASD and the utility of a baseline EEG in individuals with ASD without epilepsy, with or without regression, is dubious. There have not been prospective studies of infants prior to onset of ASD that can definitively demonstrate that epileptic disorders are causative of ASD or autistic regression. Despite studies showing that antiepileptic medications (AEDS) can have a positive impact on behaviour, no studies have yet demonstrated that treatment of epileptic disorders positively impact social, language, cognitive, or behavioural outcomes. Despite the fact that children with an epileptic encephalopathy are more likely to develop ASD, it is important to point out that ASD is not an epileptic encephalopathy and, therefore, routine EEG is not warranted for an ASD diagnosis. An overnight EEG is clinically appropriate if there is a suspicion of seizures or a clear regression. Treatment with AEDs is warranted if seizures are diagnosed. If electrical status epilepticus of sleep is diagnosed based on overnight EEG, then treatment with protocols for epileptic encephalopathy would be indicated. However, there exists no evidence that supports the treatment of a child with ASD or with regression if the EEG is normal or only demonstrates infrequent spikes. However, as discussed earlier, children with an epileptic encephalopathy are at increased risk for developing ASD and, therefore, early implementation of behavioural, communication, and educational interventions should be considered a part of their comprehensive management.

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Journal Scan

Attitudes Toward Epilepsy Among Parents of Children with Epilepsy in Southern China Haojun Yang, Yunfang Chi, Ziqing Zhu, Kailing Huang, Lan Xiang, Bo Xiao, Weiting Tang and Li Feng; Frontiers in Neurology | www.frontiersin.org ; 1 February 2021 | Volume 11 | Article 602000

Purpose: To evaluate the attitudes toward epilepsy among parents of children with epilepsy (CWE) in China and identify some related factors for future interventions for parents to offer more social support for CWE.

Method: The Chinese Public Attitudes Toward Epilepsy (CPATE) scale was administered to 234 parents of CWE and 203 parents of normal children in Xiangya hospital during 2019–2020.

Results: The cumulative score of the parents of CWE (26.427 ± 6.688) was significantly lower than that of the normal children group (32.330 ± 7.234, $p < 0.001$). Subanalysis showed more positive attitudes among parents of CWE than the control group ($p < 0.001$) toward education (4.765 ± 1.985 vs. 6.621 ± 2.419), social life (6.556 ± 2.456 vs. 8.010 ± 2.683), marriage (9.586 ± 2.675 vs. 11.025 ± 2.900), and employment (3.876 ± 1.364 vs. 4.5123 ± 1.283). The attitudes toward epilepsy among parents of CWE with seizures in public (27.16 ± 6.66) or during sleep (27.10 ± 6.38) were more negative than those without (25.35 ± 6.62 and 25.08 ± 7.10, respectively) ($p < 0.05$). In addition, female and low income were negatively related to parents' attitudes toward epilepsy.

Conclusions: More active policy guidance and adequate social support should be given to parents of children with seizures in public or during sleep to instruct their children to form a positive perception about epilepsy, which is expected to have a positive impact on their social abilities in the future.

Journal Scan

An overview of adult health outcomes after preterm birth

Casey Crump

Early Human Development 150 (2020) 105187

ABSTRACT

Preterm birth (gestational age < 37 completed weeks) has increased in prevalence in most countries in the past 20 years and now affects nearly 11% of all births worldwide. Because of treatment advances introduced in the 1970s–1980s, > 95% of preterm infants who receive modern neonatal and pediatric care now survive into adulthood. The earliest birth cohorts to benefit from those advances are now in their 4th and 5th decades of life. A growing number of large cohort studies have investigated the long-term health sequelae in adulthood. Evidence has consistently shown that adult survivors of preterm birth have increased risks of chronic disorders involving various organ systems, including cardiovascular, endocrine/metabolic, respiratory, renal, neurodevelopmental, and psychiatric disorders, which either persist from childhood into adulthood or sometimes first manifest in adulthood. These disorders also lead to moderately (30% to 50%) increased mortality risks during early to mid-adulthood among persons born preterm compared with full-term, and even higher risks among those born at the earliest gestational ages. However, the majority of persons born preterm have low absolute risks of these outcomes and good self-reported quality of life in adulthood. Priorities for future research include the assessment of long-term health sequelae of preterm birth in racially and economically diverse populations, additional follow-up of existing cohorts into older adulthood, elucidation of outcomes by preterm birth subtype (e.g., different underlying causes) to improve risk stratification, and identification of protective factors that will support the long-term health trajectory and well-being of preterm-born adults.

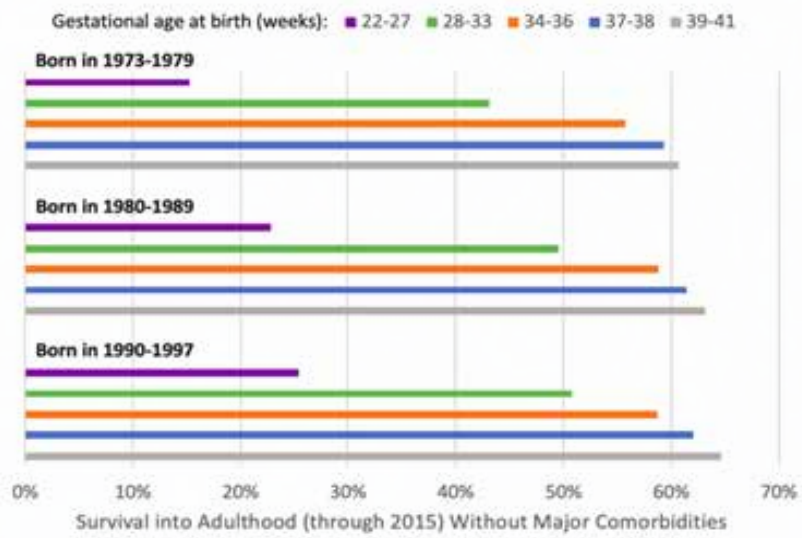

Fig. 3. Prevalence of survival without any major comorbidities (ages 18–43 years) by gestational age at birth and birth decade, 1973–2015, Sweden.

Journal Scan

The Collateral Impact of COVID-19 Emergency on Neonatal Intensive Care Units and Family-Centered Care: Challenges and Opportunities

Loredana Cena, Paolo Biban, Jessica Janos, Manuela Lavelli, Joshua Langfus, Angelina Tsai, Eric A. Youngstrom, Alberto Stefana1

Frontiers in Psychology , 1 February 2021 | Volume 12 | Article 630594

The ongoing Coronavirus disease 2019 (COVID-19) pandemic is disrupting most specialized healthcare services worldwide, including those for high-risk newborns and their families. Due to the risk of contagion, critically ill infants, relatives and professionals attending neonatal intensive care units (NICUs) are undergoing a profound remodeling of the organization and quality of care. In particular, mitigation strategies adopted to combat the COVID-19 pandemic may hinder the implementation of family-centered care within the NICU. This may put newborns at risk for several adverse effects, e.g., less weight gain, more nosocomial infections, increased length of NICU stay as well as long-term worse cognitive, emotional, and social development. This article aims to contribute to deepening the knowledge on the psychological impact of COVID-19 on parents and NICU staff members based on empirical data from the literature. We also provided evidence-based indications on how to safely empower families and support NICU staff facing such a threatening emergency, while preserving the crucial role of family-centered developmental care practices.

Month in pics

Childrens day celebrations at Saveetha Child development centre

Month in pics

'Nurturing India's Children - The Way Ahead' to commemorate Children's Day on 14th November 2021
Online event

Month in pics







CCDD Bengaluru - Children's Day Celebration

Month in pics

Fellowship examination at Sir Gangaram Hospital New Delhi

Month in pics

Month in pics

Month in pics