

### Monthly e-Newsletter of IAP Chapter of Neurodevelopmental Pediatrics

### IAP CHAPTER OF NEURO DEVELOPMENTAL PEDIATRICS

Champerson	. Di Shabina Allineu	
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	Dr Samir Dalwai	
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December 2023

### Editorial

Respected Seniors and dear Friends,

Wish you all a merry Christmas and a very Happy New Year! Hope this year brings lots of hope and advancements in child development. I wish to extend



my sincere gratitude to all the seniors and colleagues for making the activities and academic programs of our Chapter a Success and sensitising the general Paediatricians about the NDDs in 2023 especially conducting so many workshops on NC-ECD and starting the RACE module.

3rd December is World persons with disabilities day. The theme this year is "United in action to rescue and achieve the SDGs for, with and by persons with disabilities ."In India, about 2.1% of the population has some disability. Among the total disabled in the country, 12.6 million are males and 9.3 million are females. Such a huge population deserves better services than the existing ones which can happen with increasing awareness and political will.

This month we have a write-up on Vision screening in children by an Ophthalmologist.

Happy reading.

Long live IAP and the Neurodevelopmental Chapter! of IAP!

Dr. Lata Bhat Chief Editor



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### **Chairperson's Message**

#### Dear Readers,

Heartiest New Year greetings to all, with wishes for good health and happiness.

At the outset, my sincere heartfelt gratitude to the active participation of the members, coordinators, and executive members for their wholehearted support and work.



The year ends with the World Disability Day on 3rd December. The theme for 2023 is "United in action to rescue and achieve the SDGs

for, with and by persons with disabilities". In keeping with the agenda for sustainable development 2030, we are looking forward to developing a knowledgeable human resource and informed care and support system, in an inclusive setting, to realize the dreams of every child.

We look forward to receiving more write-ups on upgraded and the latest updates on neurodevelopmental issues.

Happy reading.

#### Dr. Shabina Ahmed MD, FIAP

National Chairperson Neurodevelopmental Pediatrics Chapter of IAP

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### **Snippets from the Secretary**

**Respected Seniors and Dear Friends,** 

Seasons greetings and New year wishes to all members and their families. Every year, the month of December brought with it the hopes and positive vibes. The new team of chapter office bearers takes charge from Jan 2024 and I wish them good luck and best wishes My tenure as chapter secretary ends this month and I want to thank Dr Shabina Ahmed Chapter



chairperson for her guidance and support over the years. I also take this opportunity to thank past chairpersons - Dr SS Kamath, Dr Abraham K Paul, Dr Jeeson Unni and Dr Samir Dalwai for their mentorship which has helped me perform my duties as secretary. I thank all the chapter members for their active participation in various chapter activities which has resulted in the chapter going from strength to strength.

A research methodology workshop is planned for the new batch fellowship students in the last week of Nov and first week of December with the help of CARING institute, Thiruananthpuram. We plan to start the online combined teaching activity for all the fellows to improve the course quality from Jan 2024.

03 Dec is celebrated as Internantional day of person with disabilities and the chapter is proud to inform all the members that the chapter guidelines on "Neurodevelopmental Disorders Habilitation Process" prepared under the guidance of Dr MKC Nair have been accepted for publication and will be published in the Jan 2024 issue.

Wishing everyone and their families Merry Christmas and a happy and prosperous new year.

...I have miles to go before I sleep.' - Robert Frost

Long live IAP,

Jai Hind!

**Gp Capt (Dr) KS Multani (Retd)** National Secretary IAP Chapter of Neurodevelopmental Paediatrics



### **VISION SCREENING IN CHILDREN**

Visual problems can affect a child's physical & mental development. The World Health Organization estimates that 19 million children are visually impaired, among whom, 1.4 million are blind. In India 0.8/1000 children are estimated to be blind. Almost half the causes of visual loss are preventable if detected and treated timely. The common eye problems that need to be identified include refractive errors, squint, amblyopia, congenital cataract and glaucoma, corneal diseases and tumors.

Screening children for vision and eye problems requires a regular program at different ages. The protocol varies amongst different regions. In India we don't have any defined national guidelines. From birth to teen years, the visual system develops to maturity with time. As the child's eye develops the methods used for screening vary. The team involved includes the Pediatrician, Optometrist and Ophthalmologist. Keen observation by the parents and teachers can help in early detection of eye diseases. School health programs can be helpful in screening for visual problems.

#### Recommended Schedule for Vision screening in childhood

(American Academy of Ophthalmology & American Association for Pediatric ophthalmology & Strabismus)

#### At Birth-3 months

The Pediatrician checks the newborn's eyes for any obvious abnormality, pupil response and red reflex. Further comprehensive check by an Ophthalmologist is required in case of Prematurity for ROP screening or if any abnormality is observed or if there is any family history of childhood eye disease like Congenital cataract, glaucoma, retinoblastoma.

#### 6 to 12 months

During regular visits the Pediatrician checks for baby's visual responses, eye alignment and movement and refers to ophthalmologist in case of abnormal appearance, delayed milestones or conditions like Rubella,Down syndrome.

#### 1-3 years

Child's eye should be checked for proper alignment and refractive errors especially where there is a family history of eye disease.

#### **3-5** years

As the child enters school, age-appropriate vision testing should be done to detect and treat refractive errors and amblyopia at an early stage.

#### **Above 5 years**

As the child's visual needs increase a comprehensive eye exam should be done by an Ophthalmologist to check for Refractive errors, squint, amblyopia, and other eye diseases.

One needs to watch for abnormal head tilting, face turning, blinking, eye squeezing, poor hand eye coordination, learning disability and delayed developmental milestones.

#### Visual System History Assessment (Clinical report AAP)

Relevant family history regarding eye disorders (cataracts, strabismus, amblyopia, and refractive error), eye surgery, and the use of glasses during childhood in parents or siblings should be explored. Parents' observations are also valuable in the history and review of systems. Questions that can be asked include:

- 1. Do your child's eyes appear unusual?
- 2. Does your child seem to see well?



- 3. Does your child exhibit difficulty with near or distance vision?
- 4. Do your child's eyes appear straight or do they seem to cross?
- 5. Do your child's eyelids droop or does one eyelid tend to close?
- 6. Has your child ever had an eye injury?

#### **Types of Pediatric Vision Screening**

A variety of vision screening methods are available depending on the age of the child and the setting in which it is performed whether in office or in the community. The purpose of any vision screening method is to identify children who require a comprehensive and detailed eye evaluation by an ophthalmologist.

#### **Subjective screening**

Subjective screening requires significant participation from a child to identify optotypes such as letters and shapes. It is most effective in verbal children age 5 and older, but may be attempted in younger verbal children. Subjective screening includes various forms of visual acuity testing such as Snellen charts, HOTV, Lea symbols and picture charts. The testing distance can vary from 3-20 feet. The child should be comfortably seated and explained the procedure. Each eye is tested separately while other eye is occluded. The method is inexpensive and can be adapted to both community and clinic settings.

#### **Objective screening**

These methods require less input from the child and so are useful where the child is nonverbal or uncooperative. They are rapid and noninvasive but are more costly.they can screen for refractive errors and amblyopic risk factors.

#### Autorefractive screening

Autorefractor devices can help in screening both verbal & non verbal children as it only requires the child to focus on the machine long enough for it to take a measurement. They can be tabletop or hand held so can be used both in the community and in office setting. It requires minimal training to operate so it is useful as a screening device. They can be used in undilated eyes and quickly give an estimate of the child's refractive status and depending on the referral criteria the child can be referred for a cycloplegic refraction and comprehensive eye evaluation.

#### **Photoscreening**

Photoscreeners take images of the corneal light reflex from a child's pupil. The test is performed binocularly and is based on the reflexes an examiner or a computer program can analyze to determine if there is strabismus and/ or significant refractive error, or anisometropia (unequal refractive error). Photoscreeners can also detect other anatomical abnormalities, including cataract, coloboma or ptosis. due to the change in the appearance of the red reflex. Unlike autorefrefractive screening, it can directly screen for manifest strabismus. The test can be performed on both verbal and pre-verbal children, and again, is much faster than acuity screening.

#### Visual Evoked Potential/ response (VEP/VER)

This is a device available from Diopsys which estimates visual acuity, or the difference in visual acuity between two eyes utilizing a sweep VEP. The machine analyzes the results and gives the user a pass/refer result.



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### Eye examination guidelines by American Academy of Paediatrics

Function	Recommended Tests	Referral Criteria	
Newborn to 6 months			
Vision assessment	Fixation and follow response	Inconsistent or no response by 3 mo	
Ocular media clarity	Red reflex	White, pupil, dark spots, absent or asymmetric reflex	
External inspection	Direct observation	Any ocular abnormality of concern	
6-12 months	N NOT		
Pupil examination	Flashlight	As above for ages newborn to 6 mo, plus	
1-3 years			
		As above for ages 6 mo to 12 mo, plus	
Instrument-based vision screening when available	Photoscreening Autorefraction	Failed screening as indicated by the device	
Distance visual acuity may be attempted at age 3 y	HOTV or LEA Symbols	Fewer than a simple majority of optotypes correct on the $10/25$ (20/50) line with either eye tested monocularly at 10 ft	
4-5 years	V. A		
Distance visual acuity or instrument-based screening when available	HOTV or LEA symbols	A simple majority of figures correct on the age- appropriate critical line with either eye tested monocularly at 10 ft	
Ocular alignment	Cross cover test	Any eye movement	
Any asymmetry of pupil color, size, brightness			
Ocular media clarity	Red reflex	White pupil, dark spots in pupil, absent red reflex	
Above 6 years			
Distance visual acuity; instrument-based screening when available for children unable to perform acuity	Sloan letters or Snellen letters HOTV or LEA symbols	Fewer than a simple majority of optotypes correct on the 10/15 (20/30) line with either eye tested monocularly at 10 ft	
		or	
		For threshold testing: only: a 2-line difference between eyes, even within the passing range; eg, 10/10 (20/20) and 10/15 (20/30)	
	D. J C	Any eye movement	
Ocular media clarity	Red reflex	White pupil, dark spots, absent reflex	



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### **Journal Scan**

#### Screen Time and Autism Spectrum Disorder - A Systematic Review and Meta-Analysis

#### Yaakov Ophir, PhD; Hananel Rosenberg, PhD; Refael Tikochinski, MA; Shani Dalyot, PhD; Yuliya Lipshits-Braziler, PhD

#### JAMA Network Open. 2023;6(12):e2346775. doi:10.1001/ jamanetworkopen.2023.46775 (

#### Abstract

Contemporary studies raise concerns regarding the implications of excessive screentime on the development of autism spectrum disorder (ASD). However, the existing literature consists of mixed and unquantified findings.

OBJECTIVE To conduct a systematic review and meta-analyis of the association between screen time and ASD.

DATA SOURCES A search was conducted in the PubMed, PsycNET, and ProQuest Dissertation & Theses Global databases for studies published up to May 1, 2023.

STUDY SELECTION The search was conducted independently by 2 authors. Included studies comprised empirical, peer-reviewed articles or dissertations published in English with statistics from which relevant effect sizes could be calculated. Discrepancies were resolved by consensus.

DATA EXTRACTION AND SYNTHESIS This study followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) reporting guideline. Two authors independently coded all titles and abstracts, reviewed full-text articles against the inclusion and exclusion criteria, and resolved all discrepancies by consensus. Effect sizes were transformed into log odds ratios (ORs) and analyzed using a random-effects metaanalysis and mixed-effects meta-regression. Study quality was assessed using the Grading of Recommendations, Assessment, Development, and Evaluations (GRADE) approach. Publication bias was tested via the Egger z test for funnel plot asymmetry. Data analysis was performed in June 2023.

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### **Journal Scan**

MAIN OUTCOMES AND MEASURES The 2 main variables of interest in this study were screen time and ASD. Screen time was defined as hours of screen use per day or perweek, and ASD was defined as an ASD clinical diagnosis (yes or no) or ASD symptoms. The meta-regression considered screen type (ie, general use of screens, television, video games, computers, smartphones, and social media), age group (children vs adults or heterogenous age groups), and type of ASD measure (clinical diagnosis vs ASD symptoms).

RESULTS Of the 4682 records identified, 46 studies with a total of 562 131 participants met the inclusion criteria. The studies were observational (5 were longitudinal and 41 were cross-sectional) and included 66 relevant effect sizes. The meta-analysis resulted in a positive summary effect size (log OR, 0.54 [95%CI, 0.34 to 0.74]). A trim-andfill correction for a significant publication bias (Egger z = 2.15; P = .03) resulted in a substantially decreased and nonsignificant effect size (log OR, 0.22 [95%CI, -0.004 to 0.44]). Themeta-regression results suggested that the positive summary effect size was only significant in studies targeting general screen use ( $\beta$  [SE] = 0.73 [0.34]; t58 = 2.10; P = .03). This effect size was most dominant in studies of children (log OR, 0.98 [95%CI,0.66 to 1.29]). Interestingly, a negative summary effect size was observed in studies investigating associations between social media and ASD (log OR, -1.24 [95%CI, -1.51 to -0.96]).

CONCLUSIONS AND RELEVANCE The findings of this systematic review and meta-analysis suggest that the proclaimed association between screen use and ASD is not sufficiently supported in the existing literature. Although excessive screen use may pose developmental risks, the mixed findings, the small effect sizes (especially when considering the observed publication bias), and the correlational nature of the available research require further scientific investigation. These findings also do not rule out the complementary hypothesis that children with ASD may prioritize screen activities to avoid social challenges.

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#### KERALA UNIVERSITY OF HEALTH SCIENCES

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PHONE: 0487 - 2207650, 2207664; FAX: 0487 - 2206770

#### No:5613/2022/Schools&Centres/KUHS

Date : 30-11-2023

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#### Notification

In observance of the **International Day for Persons with Disability (IDPD 2023)** on 3<sup>rd</sup> December 2023, the Centre for Disability Management Studies, School of family Health Studies, KUHS, is conducting a webinar on 4<sup>th</sup> **December 2023 at 3 p.m-5 p.m.** on the theme of the year **"United in action to rescue and achieve the SDGs for, with and by persons with disabilities".** 

#### Programme schedule

• Welcome Address- Prof. (Dr.) Geetha M. Govindaraj, Professor, School of Family Health Studies, KUHS.

Inauguration: Prof. (Dr.) Mohanan Kunnummal, Hon'ble Vice-Chancellor, KUHS

- Felicitation: Prof. (Dr.) C. P. Vijayan, Pro-Vice-Chancellor, KUHS
- Keynote speaker: Dr. Shabina Ahmed, Founder Director, Assam Autism Foundation, a pioneer organisation in

the North East of India and a renowned Paediatrician with more than 40 years of experience.

Topic: Experience sharing and how to meet this year's IDPD theme-United in action to rescue and achieve the

#### SDGs for, with and by persons with disabilities".

• Vote of thanks: Dr. Subhadra. K. T., Associate Professor, School of Family Health Studies.

Mode of Conduct: Zoom

#### Who can participate:

- Faculty and students of the affiliated colleges of KUHS
- Faculty who have attended the earlier Certificate programs in Disability Management Studies conducted by the

Phone : 0487-2207664, 2207642 Fax : 0487 – 2207616, 2207620

e-mail: keralahealthuniversity@gmail.com







#### KUHS.

 Participants who are presently doing the MOOC-CCDM&R program are strictly advised to attend the program and choose the opportunity to interact with the speaker.

How to participate:

Please click on the below link to participate

https://us02web.zoom.us/j/81856130696?pwd=KzliMHBZd0s2eDFuMHNJdkFvMFpOdz09

or

Digitally approved document; signature not required.

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http://www.kuhs.ac.in IWWuM-xGE-cRjCC-ehcI

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Use the login credentials given below in the ZOOM platform to participate

Meeting ID: 818 5613 0696, Passcode :783258

For any queries, please write to <u>cdms@kuhs.ac.in</u> or contact 9447356378.

REGISTRAR

Phone: 0487-2207664	2207642	Fax:0487-	220761	6,2207620
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e-mail: keralahealthuniversity@gmail.com





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### **Month in pics**



Dr Himani Narula Developmental Behavioural, Co-Founder and Director Continuakids (Chain Of Child developmental center in North India) conducted workshops on 2nd and 3rd December 2023 on supporting adolescents with Autism at Noida and Gurgaon respectively.

Each workshop was well attended by 50 to 60 parents and Caregivers .

The focus was at training parents to overcome the challenges that they may come across while transitioning from early childhood to adolescence.

The workshop was conducted in association with Rotary Club (International) with Local branches .





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# **Month in pics**





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### **Month in pics**



RC Madras, Dist: - 3232 RC Colombo reconnections 3220 - Sri Ianka RC Brisbane, Australia - 9620 Host Club : RC Delhi South East, RID-3011 RC Delhi Premier

CONTINUA

# Supporting Adolescent's With Autism

A Global Initiative by Rotary Autism children Transitioning into Adolescence A WORKSHOP FOR PARENTS & CAREGIVERS

# ON 3RD OF DECEMBER'23 9:15 AM TO 1:00 PM (FOLLOWED BY LUNCH)

# JOIN US AT

CHAUPAL HOTEL GURGAON PLOT NO. 303/2, OLD DELHI GURGAON RD, NEAR BSNL TELEPHONE EXCHANGE, ANAMIKA ENCLAVE, SECTOR 14, GURUGRAM, HARYANA 122001

Google Maps



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### **Month in pics**



"Developmental Assessment Made Easy "- DAME workshop successfully conducted in IMA State conference at Erode Tamilnadu TIMACON 2023 as a Pre conference workshop on 8 th December 2023 successfully. 62 participants from Tamilnadu IMA trained in this workshop. DAME module and IAP parenting and child development guide booklet both in Tamil and English were given to all delegates. Dr. P. Sivaraman, Erode Dr. Udayakumar, Chennai and myself were the faculty. Thanks to IMA officials for giving this golden opportunity to do a IAP project in IMA . Dr. V. Sivaprakasam TN





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### **Month in pics**



Conference in Assam. Addressed ADHD Peadiatrician's perspective. Date 17th December in Bongaigoan Assam





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## **Month in pics**



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# **Month in pics**



Participated in half marathon on 3 rd December



# EVELOPMENTAL | EDIATRICS | ODAY

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### **Month in pics**



Dr. Shambhavi and Dr. Lata Bhat, faculty in RACE workshop in Delhi on 22 December 2023 at Max Hospital Shalimar Bagh