



DPT

DEVELOPMENTAL PEDIATRICS TODAY



April 2021

Monthly e-Newsletter of IAP Chapter of Neurodevelopmental Pediatrics

IAP CHAPTER OF NEURO DEVELOPMENTAL PEDIATRICS

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Editorial

Respected seniors and dear friends,

Greetings from the chapter !

Hope you and your family is safe .India's second Covid started after February 11 and in the beginning it was confined to Maharashtra , but April onwards it swept over the rest of the country and April was the worst month in terms of infections .Although , the worst is now over for some large states . In the first 19 days of May 66866 people are reported to have died because of Covid 19 making it deadliest month during Covid.



This wave had more than 4 times case load as compared to first wave which had maximum 1 lac cases. Its doubling rate was high. Household attack rate was 100%. More younger people and health care workers got affected in this wave..

There have been many indirect effects of Covid 19 Pandemic on children. There has been a decrease in the regular preventive and other health checkups. Closure of schools has affected learning and increased the incidence of mental health issues in children. Increased screen time is causing hyperactivity, increase diagnosis of ASD, speech delay etc. Increased domestic violence as well as witnessing death in the family and around them is leading to anxiety and depression in children. Also, Nutrition is affected due to increase in junk food or because of increased poverty.

Further, some experts are predicting the possibility of a third wave in India due to current Covid -19 variant which is likely to hit kids disproportionately. However, there was a seroprevalence study conducted by WHO and AIIMS among children of 2-17 years age from 15 March to 10 June 2021 which showed sero-prevalence was 55.7% in less than 18 years age group and 63.5% among adults of age 18years and above. "The SARS – Co V2 seropositivity rate among children was high and comparable to the adult population. Hence it is unlikely that any future third wave by the prevailing Covid-19 variant would disproportionately affect children 2 years or older." Said a preprint of the study published in medRxiv.

May 15th is international family day. In such stressful times, people have realised the importance of family in one's life and at the same time many kids have been orphaned due to the death of one or both parents posing huge threat to the mental and physical health of such kids. Our role as developmental Paediatricians is going to increase in the society in order to help rehabilitate these children who have suffered due to Pandemic.

This month's Quiz is based on ADHD. Kindly send your answers.

Stay safe .

Long live IAP!

*Dr. Lata Bhat
Chief Editor*



Chairperson's Message

Dear Readers,

My warm summer greetings to all of you.

This issue comes at a time when India's share of global COVID cases is 45.8%. Children in distress was reported to be close to 30,071 with 26,176 losing a parent and 3,621 losing both parents ,247 being abandoned these are some of the reports from April 2020 to June 2021 by the National Commission for Protection of Child Rights, of the registered cases . On the other hand pregnant mothers with COVID-19 were also more likely to give premature birth, findings have shown 1 out of 4 babies born of COVID mothers were born premature. This brings us to think of the potential impact on the future generation, and calls upon all of us to look for the cumulative effects that might emerge during adolescence in the form of behaviour problems , autism, schizophrenia and epilepsy.



It is time for collaborative network of all disciplines to understand the neurological and neuropsychiatric clinical manifestations and its impact on neurodevelopmental trajectory. If we presume the entry of COVID-19 virus into the CNS is via the olfactory route then affection of frontal lobes may lead to behaviour changes of inhibitory control, loss of social inhibition, loss of fear and anxiety, inhibition of executive function and memory. We need to watch out for early signs and nip things in the bud.

With this stimulus I leave you all to read this interesting issue.

Happy reading,

Dr. Shabina Ahmed MD, FIAP

National Chairperson

Neurodevelopmental Pediatrics Chapter of IAP



Snippets from the Secretary

**“A great soul serves everyone all the time. A great soul never dies.
It brings us together again and again.” — Maya Angelou**



Respected Seniors and dear friends,

Seasons greetings from the IAP Chapter of Neurodevelopmental Pediatrics.

May month saw the country deep in the clutches of the ‘Second Covid wave’ with saddening images of overflowing hospital wards, shortage of essential medicines and oxygen, overwhelmed medical staff and infrastructure and burning pyres at cremation grounds. The wave has tested the resilience of both doctors and patients and families at all levels and though the numbers of covid cases has been coming down for some time now, we need not let down our guard lest we want to suffer again like second wave. The country lost a large number of doctors and paramedical personal in the last month to Covid and as we mourn, we should also prepare for the future and the possible third Covid wave.

Covid vaccination has been going on for last few months and despite having inoculated more than 20 crore people, there is still a large number of population including children who are not yet vaccinated. The expected third Covid wave is likely to affect younger population incl children and we expect some good news regarding Covid vaccine for children in next few months. We look forward to central IAP to take up the case for early Covid vaccination for all children with special needs on priority with the government as and when the vaccination opens up for the pediatric age groups. Children of all ages have been the silent sufferers during the pandemic with the younger children missing all the social interaction and the adolescents having board and entrance examinations having multiple

May month has many important health days - World Asthma Day, World Thallasemia Day, International Women Health Day to name a few. We have some interesting articles in the journal scan section related to the acute and chronic effects of the ongoing pandemic on the children with neurodevelopmental disorders and their caregivers. It is the need of the hour for all of us to look into the mental health related issues with a family centre approach for all i.e. patients, caregivers and care providers.

Happy reading and stay healthy and stay safe.

Jai Hind! Jai IAP !

Wg Cdr (Dr) KS Multani

National Secretary

IAP Chapter of Neurodevelopmental Paediatrics

***“There are no happy endings, endings are the saddest part.
So just give me a happy middle and a very happy start.”
— Shel Silverstein***



Excerpt from the article 'Virtual Reality as a Promising Tool for Autism Intervention'

Dr. Maria Grace Treasa, Ph.D(SLP)

**Pediatric Speech-Language Pathologist, AsterKIND
(Kids Integrated Neuro-Developmental Center), Aster Medcity, Kochi, Kerala**



The use of Virtual reality in the field of rehabilitation has been increasingly popular in the recent times. Pimentel and Teixeira (1993) defined Virtual Reality (VR) as an “interactive, immersive experience generated by a computer”. Virtual reality allows people to explore Virtual Environments (VE) through sight, sound, touch and sometimes even smell (Wang & Reid, 2011) and creates the sensation in a user of being present in a physical surrounding (Seipel, 1993). It simulates real environments for training, entertainment or design purposes. It creates a safe and controllable role-playing environment for repeated practice of specific skills in different trials.

Virtual reality uses computers to generate 3D environments in which one can navigate to explore the environment and interact with things in the scene. For example, while walking through the park (VE), child looks at bubbles and touches it to pop the bubble. Even neurotypical children would enjoy the use of VR technology to learn, for instance, the rules of a game like football (by navigating or kicking the ball in the VR unit floor), or adults with autism would benefit in learning the rules or steps of driving in a virtual driving simulation. VR helps individuals with autism to be prepared of what is

expected of them in various social contexts reducing their anxiety/stress to confront real-life situations.

This led to the systematic review of literature on VR and its applications in the field of rehabilitation and autism intervention (Sinitha, Stephy & Dr.Maria, 2021). VR was found to be effective for patients with neurological disorders, visual impairment, psychiatric problems and children with neurodevelopmental disorders. It helps to improve skills like emotion recognition, reasoning, safety skills, understanding social rules, social interaction, motor and cognitive skills in children with autism spectrum disorder. Depending on the treatment goal, the VE characteristics can be modified to include or exclude specific stimuli category. The child's behavior in the challenging environment can be measured objectively. This paper also found the use of VR technology as a promising tool for autism intervention in the Indian context.

Reference for further reading: Sinitha. K.M | Stephy Jacob | Dr. Maria Grace Treasa “Virtual Reality as a Promising Tool for Autism Intervention” Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-5 | Issue-4, June 2021, pp.1274-1280, URL: www.ijtsrd.com/papers/ijtsrd42523.pdf



Journal Scan

Impact of COVID-19 outbreak on mental health and perceived strain among caregivers tending children with special needs

Sapna Dhiman , Pradeep Kumar Sahu , William R. Reed , G. Shankar Ganesh,
Ramesh K. Goyal , Shilpa Jain

Research in Developmental Disabilities 107 (2020) 103790

Background: While COVID-19 outbreak has had adverse psychological effects in children with special needs, the mental state and burden on their caregivers during this pandemic has yet to be reported.

Aims: The objectives of this study were to describe the mental health status and the change in perceived strain among caregivers during the COVID-19 outbreak.

Methods and procedures: Two hundred sixty four caregivers completed an online survey that assessed demographics, use and perspective on tele-rehabilitation, home care therapy, caregiver's strain and mental health.

Outcomes and results: The prevalence of depression, anxiety and stress symptoms were found to be 62.5 %, 20.5 % and 36.4 % respectively. A significant difference in caregiver strain ($p < 0.001$, effect size = 0.93) was observed during the outbreak compared to levels pre-outbreak (pre-outbreak strain was measured retrospectively). Caregivers not using tele-rehabilitation along with a perception of it being a poor medium for rehabilitation were at greater risks for poor mental health whereas a negative perception on home care therapy were strongly associated with higher psychological symptoms and strain.

Conclusions and implications: This study identified a high prevalence of depression and significant change in strain displayed by caregivers during the COVID-19 outbreak. We identified several factors associated with poor mental health and perceived strain that can be used to help safeguard caregivers.



Journal Scan

“We’ve got through hard times before” Acute mental distress and coping among disadvantaged groups during COVID-19 lockdown in North India - a qualitative study

Kaaren Mathias, Meenal Rawat, Sharad Philip and Nathan Grills

International Journal for Equity in Health (2020) 19:224

Background: The COVID-19 crisis in India negatively impacted mental health due to both the disease and the harsh lockdown, yet there are almost no qualitative studies describing mental health impacts or the strategies of resilience used, and in particular, no reports from the most vulnerable groups. This study aimed to examine the acute mental health impacts of the COVID-19 crisis as well as coping strategies employed by disadvantaged community members in North India.

Methods: We used an intersectional lens for this qualitative study set in rural Tehri Garwhal and urban Dehradun districts of Uttarakhand, India. In-depth interviews were conducted in May 2020 during lockdown, by phone and in person using purposive selection, with people with disabilities, people living in slums with psychosocial disabilities and widows (total n = 24). We used the framework method for analysis following steps of transcription and translation, familiarisation, coding, developing and then applying a framework, charting and then interpreting data.

Findings: The participants with compounded disadvantage had almost no access to mobile phones, health messaging or health care and experienced extreme mental distress and despair, alongside hunger and loss of income. Under the realms of intrapersonal, interpersonal and social, six themes related to mental distress emerged: feeling overwhelmed and bewildered, feeling distressed and despairing, feeling socially isolated, increased events of othering and discrimination, and experiencing intersectional disadvantage. The six themes summarising coping strategies in the COVID-19 crisis were: finding sense and meaning, connecting with others, looking for positive ways forward, innovating with new practices, supporting others individually and collectively, and engaging with the natural world.

Conclusions: People intersectionally disadvantaged by their social identity experienced high levels of mental distress during the COVID-19 crisis, yet did not collapse, and instead described diverse and innovative strategies which enabled them to cope through the COVID-19 lockdown. This study illustrates that research using an intersectional lens is valuable to design equitable policy such as the need for access to digital resources, and that disaggregated data is needed to address social inequities at the intersection of poverty, disability, caste, religious discrimination and gender inherent in the COVID-19 pandemic in India.



Journal Scan

Impact of COVID-19 and lockdown on mental health of children and adolescents : A narrative review and recommendations

**T Shweta Singh, Deblina Roy, Krittika Sinha, Sheeba Parveen,
Ginni Sharma, Gunjan Joshi**

Psychiatry Research 293 (2020) 113429

Background: COVID-19 pandemic and lockdown has brought about a sense of fear and anxiety around the globe. This phenomenon has led to short term as well as long term psychosocial and mental health implications for children and adolescents. The quality and magnitude of impact on minors is determined by many vulnerability factors like developmental age, educational status, pre-existing mental health condition, being economically underprivileged or being quarantined due to infection or fear of infection.

Aims: This paper is aimed at narratively reviewing various articles related to mental-health aspects of children and adolescents impacted by COVID-19 pandemic and enforcement of nationwide or regional lockdowns to prevent further spread of infection.

Methodology: We conducted a review and collected articles and advisories on mental health aspects of children and adolescents during the COVID-19 pandemic. We selected articles and thematically organized them. We put up their major findings under the thematic areas of impact on young children, school and college going students, children and adolescents with mental health challenges, economically underprivileged children, impact due to quarantine and separation from parents and the advisories of international organizations. We have also provided recommendations to the above.

Conclusion: There is a pressing need for planning longitudinal and developmental studies, and implementing evidence based elaborative plan of action to cater to the psycho social and mental health needs of the vulnerable children and adolescents during pandemic as well as post pandemic. There is a need to ameliorate children and adolescents' access to mental health support services geared towards providing measures for developing healthy coping mechanisms during the current crisis. For this innovative child and adolescent mental health policies policies with direct and digital collaborative networks of psychiatrists, psychologists, pediatricians, and community volunteers are deemed necessary.



Journal Scan

Rehabilitation services lockdown during the COVID-19 emergency:

The mental health response of caregivers of children with neurodevelopmental disabilities

Serena Grumi, Livio Provenzi, Alice Gardani, Valentina Aramini, Erika Dargenio, Cecilia Naboni, Valeria Vacchini, Renato Borgatti & Engaging with Families through On-line Rehabilitation for Children during the Emergency (EnFORCE) Group

Disability & Rehabilitation 2021, VOL. 43, NO. 1, 27–32

Background: The present study investigated the impact of the COVID-19-related rehabilitation services lockdown on the mental health of caregivers of children with neurodevelopmental disabilities.

Methods: Between 26 March and 11 May 2020, 84 caregivers filled out ad-hoc and standardized questionnaires through an online survey in order to measure their psychological response to the emergency and lockdown as well as their levels of parenting stress, anxiety and depression.

Results: Worries about COVID-19 contagion and concerns for the child left without rehabilitation programs were the greatest sources of mental health burden for caregivers. Nonetheless, only the concerns for the child were significantly associated with caregivers' reports of stress, depressive and anxious symptoms.

Discussion: These findings highlight the burden faced by caregivers of children with neurodevelopmental disabilities during the COVID-19 emergency in Italy. These families should be considered as a high-risk population that requires dedicated healthcare attention, such as promoting continuity of care by investing in tele-rehabilitation programs.



Quiz

Dr. Lata Bhat

Director, Palak Child Development Centre - Delhi
Senior Consultant, Indraprastha Apollo Hospital - Delhi
Lata2207@gmail.com | 9818294797

Qs. 1. The DSM-5 criteria define 4 dimensions of ADHD: (May 2013 AAP). Which of the following is true :

- a. Attention-deficit/hyperactivity disorder primarily of the inattentive presentation (ADHD/I)
- b. Attention-deficit/hyperactivity disorder primarily of the hyperactive-impulsive presentation (ADHD/HI)
- c. Attention-deficit/hyperactivity disorder combined presentation (ADHD/C)
- d. ADHD other specified and unspecified ADHD.

Qs. 2 Which of the following is true regarding ADHD :

- a. Pre-schoolers with ADHD : are highly overactive (described as “whirlwind”), do not listen to when called, have no sense of danger, and have short play sequences (of <3 min), and often leave activities incomplete.
- b. The paediatrician or other PCC should initiate an evaluation for ADHD for any child or adolescent age 4 years to the 18th birthday who presents with academic or behavioural problems and symptoms of inattention, hyperactivity, or impulsivity
- c. Recommendations vary depending on the

patient’s age and are presented for the following age range :- preschool-aged children: age 4 years to the sixth birthday; elementary and middle school-aged children: age 6 years to the 12th birthday; and adolescents: age 12 years to the 18th birthday.

d. All the above

3. Which of the following is true regarding ADHD - other specified (OS)and unspecified ADHD :

- a. OS ADHD is DSM 5 diagnosis, assigned to individuals who have symptoms of ADHD ,which cause distress or impair social ,educational/occupational or other vital areas of functioning ,but they do not meet the complete diagnostic criteria for ADHD or other disorders in the Neurodevelopmental Category. This diagnosis is assigned when the clinician specifies the reason the diagnostic criteria are unmet .The clinician will record the reason as part of the diagnosis.
- b. Unspecified ADHD category is used in situations in which the clinician chooses not to specify the reason that the criteria are not met for the ADHD or for a specific Neurodevelopmental disorder and includes presentation in which there is insufficient



Quiz

- information to make a more specific diagnosis
- c. Both a and b
 - d. None of the above
- 4. Associated problems in ADHD include :**
- a. ODD
 - b. Anxiety
 - c. Substance abuse or high risk behaviours
 - d. All the above
- 5. Executive functions which are affected in kids with ADHD include:**
- a. **Impulse Control, Emotional Control, Flexible Thinking**
 - b. Working Memory, Self-Monitoring, Planning and prioritizing
 - c. Task Initiation, Organization
 - d. All the above

Please send answers to lata2207@gmail.com / Kawaljit000@gmail.com.
Correct answer will be published in next issue

Answers - APRIL 2021

- 1. a,b,c,d
- 2. a,b,c,d
- 3. d
- 4. a,b,c,d
- 5. c



Month in pics



1. Who needs follow up (who are "at-risk")
2. screening and assessment
 - While in NICU
 - And after discharge
3. **Specific timely interventions — minimize disability**
4. How do I organize a follow up service



Month in pics



IMPACT OF PANDEMIC & ONLINE EDUCATION ON KIDS AND YOUNG ADULTS

#Monday Motivation
24th May 2021 - 9 pm IST



Dr Samir Dalwai
Consultant Developmental Pediatrician

Moderators:
Atul Bhaskar, Barkha Chawla, Tushar Agrawal



New Horizons
Child Development
Centre





Month in pics



Asia Pacific Pediatric Association in Collaboration with the Indonesian Pediatric Society and Turkish National Pediatric Society presents Online Symposium and Panel Discussion

Commemorating World Autism Day: Better Care for Better Future Autism Kids



May, 1st 2021 02.00- 04.00 PM Western Indonesia Time (UTC+07:00)



Speakers

Keynote



Prof. Hardiono D. Pusponegoro, MD, Ph.D
Indonesia



Samir Hasan Dalwai, MD, DNB, DCH, FCPS, FIAP, LLB
India



Prof. Ebru Arhan, MD
Turkey



Prof. Aman B. Pulungan, MD, Ph.D, FAAP, FRCPI(Hon)
Indonesia



Prof. Yıldız Camcıoğlu, MD
Turkey

Panelists

Moderator



Prof. Shazia Maqbool, MD
Pakistan



Norazlin Kamal Nor, MD, Ph.D
Malaysia



Prof. Tatsuya Koeda, MD, Ph.D
Japan



Purboyo Solek, MD
Indonesia



Register here :
<http://bit.ly/OSAutism-2021>

This event can be attended by
general practitioners and pediatricians