Knowledge and attitude among doctors, nurses and other allied health workers on childhood neurodevelopmental disorders

Tummala Snikitha, Kamila Gautam, Gulati Sheffali*

Centre of Excellence and Advanced Research for Childhood Neurodevelopmental disorders, Child Neurology Division, Department of Pediatrics, All India Institute of Medical Sciences, New Delhi

BACKGROUND

- Healthcare practitioners need a robust understanding of Neurodevelopmental Disorders (NDDs), a diverse group affecting an individual's emotion, learning ability, self-control, and memory, with lifelong consequences
- This knowledge plays a pivotal role in recognizing children affected by these disorders, ensuring their timely diagnosis, and facilitating appropriate referrals to specialised facilities for necessary intervention

OBJECTIVES

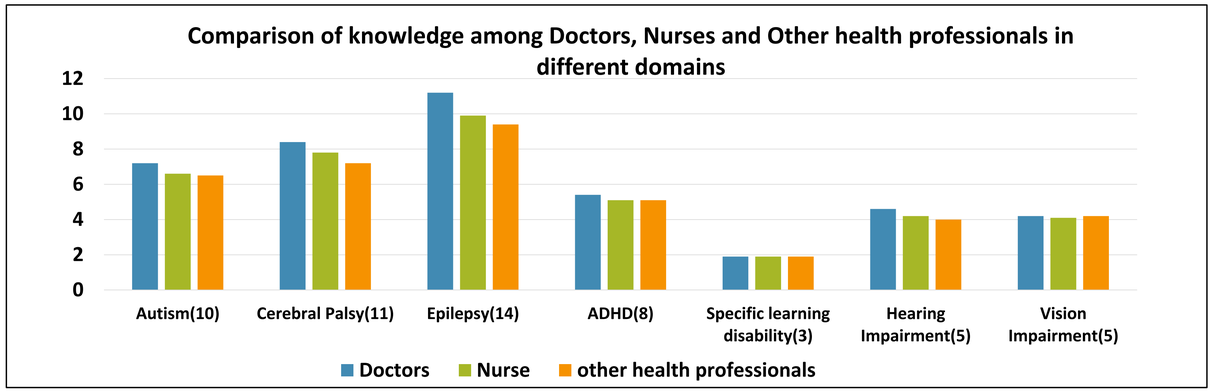
- To assess the level of knowledge and attitudes regarding childhood neurodevelopmental disorders among doctors, nurses and other allied healthcare professionals in a tertiary care hospital using a questionnaire based online survey

MATERIALS AND METHODS

- A 10-domain questionnaire, comprising yes/no and open-ended questions, was distributed online via WhatsApp and email to 400 health care professionals at a tertiary care institute, of which 309 responded, including 107 doctors, 102 nurses, and 100 other professionals
- Data was analysed using Stata 15.0. One way ANOVA (Analysis of variance) was used for comparing the scores between the three groups. Differences with p-value ≤ 0.05 were considered significant

RESULTS

- The mean score of all the participants for the questions pertaining to autism, cerebral palsy, epilepsy, attention deficit hyperactivity disorder, specific learning disability, hearing impairment and vision impairment was 40.5±5.1 with a maximum possible score of 56
- The mean scores for the individual groups of Doctors, Nurses and Other Health Professionals for these disorders were 42.9±5.4, 39.9±4.3 and 38.3±4.3 respectively
- The knowledge levels were observed to be significantly different between doctors and nurses in the autism (p=0.009), cerebral palsy (p=0.028) and epilepsy (p<0.001) domains
- Overall positive attitudes were found



Comparison of knowledge levels among Doctors, Nurses and Other Health Professionals in different domains

Domain	Doctor	Nurse	Other Health Professionals	P	P_{DN}	P_{DO}	P_{NO}
Autism (10)	7.2±1.4	6.6±1.4	6.5±1.3	0.0008	0.009	0.002	0.999
Cerebral Palsy (11)	8.4±1.5	7.8±1.5	7.2±1.8	0.0000	0.028	0.000	0.009
Epilepsy (14)	11.2±2.1	9.9±1.8	9.4±2.2	0.0000	0.000	0.000	0.109
ADHD (8)	5.4±1.1	5.1±1.2	5.1±1.2	0.1318	0.276	0.225	0.999
Specific learning disability (3)	1.9±0.6	1.9±0.6	1.9±0.6	0.7925	0.999	0.999	0.999
Hearing Impairment (5)	4.6±0.8	4.2±0.9	4.0±0.9	0.0000	0.011	0.000	0.259
Vision Impairment (5)	4.2±0.8	4.1±0.8	4.2±0.9	0.6880	0.999	0.999	0.999
Total (56)	42.9±5.4	39.9±4.3	38.3±4.3	0.0000	0.000	0.000	0.055

CONCLUSIONS

- Significant knowledge gaps persist in the treatment and misconceptions related to Neurodevelopmental Disorders (NDDs) among healthcare professionals at a reputable tertiary care hospital.
- Merely 70% of participants responded accurately, potentially causing delays in diagnosis, referral, and subsequent treatment initiation, resulting in poor prognoses
- Addressing this issue requires enhancing the knowledge of healthcare professionals across all levels, from primary to tertiary care, necessitating regular workshops

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CONTACT INFORMATION

Prof Sheffali Gulati, MD, FRCPCH (UK), FAMS, FIAP, FIMSA

www.pedneuroaiims.org , sheffaligulati1@gmail.com

twitter: @GulatiSheffali; Skype: sheffaligulati_1