

Use of Indian Scale for Assessment of Autism in Child Guidance Clinic: An Experience

Sir,

Autism is a neurodevelopmental disorder which is pervasive in nature, only one-third of those affected report of some improvement in their condition, whereas two-thirds suffer from severe impairment in functioning and need constant supervision and care throughout their life.^[1]

Clinical assessment by experienced psychiatrist by using ICD 10 or DSM IV criteria is the mainstay of diagnosis.^[2,3] Childhood Autism Rating Scale (CARS) is the commonly used scale for diagnosis and measuring the severity of autism. It assesses behavior in 14 domains and has one category of impressions of autism. This scale uses both history and observation for rating.^[4] The accuracy, reliability, and validity of CARS have been tested in the Indian population and it is found suitable for use in Indian population.^[5]

As there was no Indian scale to diagnose or measure autism, the National Institute for Mentally Handicapped (NIMH) developed the Indian Scale for Assessment of Autism (ISAA) for diagnosing and measuring the severity of autism in 2009.^[6] This scale was based on CARS and has 40 items divided under six domains – social relationship and reciprocity; emotional responsiveness; speech, language and communication; behavior patterns; sensory aspects and cognitive component. The items are rated from 1 to 5, increasing score indicating increasing severity of the problem. A score of <70 indicates no autism, 70-106 (mild autism), 107-153 (moderate autism), and >153 (severe autism). It takes about 15 to 20 minutes for administration of ISAA. The ISAA was devised with the aim of quantifying the severity of autistic symptoms so as to enable measurement of associated disability.

Autism is identified as a cause for disability in the recent working draft of the Persons with Disability Bill 2011 which follows the United Nations Convention for Rights of Persons with Disability. The bill aims to help children with disabilities develop their evolving capacities and preserve their identities.^[7] Quantification of disability would help in getting disability benefits.

We describe here the findings of application of ISAA in the Child Guidance Clinic of Govt. Medical College and Hospital, Chandigarh, in cases of autism. Cases diagnosed with autism by a psychiatrist in consultation with a consultant using ICD 10 criteria from July 2005 to June 2009 were rated on ISAA and included into the study. Complete physical and neurological examination was done. Cases with hearing difficulty, visual defects, or neurological disorders were excluded.

Of the 35 persons diagnosed with autism (26 males and 9 females), Age range was 2 to 29 years, mean age was 8.4 years.

A detailed history of prenatal and perinatal events and developmental milestones was also taken. Antenatal complications were present in 10 cases, of which three mothers had hypertension, one had diabetes mellitus, and fetal distress was present in six cases.

After birth, complications were present in nine cases. Seizures were present in one case, low birth weight in two cases, delayed cry in four, and jaundice in two cases.

Delayed milestones were present in 19 cases. Mental retardation was noted in 18 cases, whereas epilepsy was present in only three cases.

ISAA was found easy to administer. There was difficulty in scoring the items grouped under emotional responsiveness category. Item number 11 and 14 were difficult to differentiate from one another. Our sample scored within the range of mild-to-moderate autism, with 12 cases in mild category and 23 in moderate category. Majority (46%) of our patients had ISAA scores between 106-123 followed by another 31% had scores between 89-105 [Table 1].

A symptom severity score of 70 in ISAA corresponds to 40% disability; 71-88 (50%), 89-105 (60%), 106-123 (70%), 124-140 (80%), 141-158 (90%),

Table 1: Disability percentage of subjects as per autism severity scores on ISAA

ISAA score	Percentage of disability	Number
<70	No disability	-
70	40	-
71-88	50	01
89-105	60	11
106-123	70	16
124-140	80	06
141-158	90	01
>158	100	-

ISAA - Indian Scale for Assessment of Autism

whereas >158 (100%) disability. The subgroup of mild autism (70-106) has two different disability scores and the group with moderate autism (107-153) has different disability scores. A score of 153 would mean severe autism, but 100% disability benefits can be expected only if disability score is >158.

We can conclude that the scale is useful and feasible for use in routine clinical settings. The use of the scale would pave the way for addressing the long-standing concerns about identification and quantification of autism and to rate the associated disability in Indian population.

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