

Autistic Traits and Challenging Behavior in Learning Disability (Mental Retardation): A New Hope for Treatment Planning

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Abstract

Many patients with learning disabilities show some features of autistic syndromes, although there are no major controversies about the diagnostic criteria for autism, but the boundaries of autism and its prevalence in children with learning disabilities remain unclear.

We explored the presence of autistic traits and their association to with maladaptive behavior in children with learning disabilities.

The parents of 30 children with learning disabilities to a private outpatient clinic were interviewed, and information obtained concerning the deviant behavior and present ability. The children were examined for the presence of core autistic traits displayed, identification of degree of learning disability and finally exploring the association of autistic traits and challenging behavior in children with learning disabilities in order to have a comprehensive treatment planning for this group of patients.

The data obtained revealed that about 40% of the autistic trait present especially in severe and profound degree of learning disabilities and those with higher number of autistic traits demonstrated a wide range of challenging behaviors.

Many children with learning disability's demonstrated many features of autism which were under estimated and diagnosed as a part of the learning disability criteria.

So a proper assessment for this population taking in consideration the presence of autistic traits and challenging behavior will provide a major implication in treatment planing and service delivery.

Introduction

The term 'infantile autism' was first described by Leo Kanner (1943), in his classic paper "Autistic disturbances of affective contact" providing a clear account of this early childhood syndrome. Infantile autism is considered to be a rare disorder with a prevalence rate of 2-10 per 1000 children.

However, higher prevalence rates have been reported in mental retardation or the newly proposed term learning disability (Bourras, 1997).

Although there are no major controversies about the diagnostic criteria for the autistic syndrome but the boundaries of autism remain unclear. As well as the contra the prevalence of autism in both children and adults with mental retardation. Although ICD-10 check list includes the category of atypical autism under pervasive developmental disorders, this category is a newly defined disorder of uncertain nosological validity there is no readily recognizable separation point between 'true' autism and other disorders that share some behavioral features. In mentally

retarded population the prevalence of autistic traits is considered to be very high especially with severe and profound degrees of mental retardation but uncertain (Gillberg, 1990). The term 'autistic spectrum disorders' has been aimed to include the range of traits including the social language, and behavioral impairment will be more certain and conclusive (Wing, 1991).

Aim of the Work

On study looks at how prevalent the autistic traits in children with retardation (LD) as well as exploring the association of these symptoms to the degree of mental retardation and the challenging behavior, in order to formulate a comprehensive treatment plane.

Material and Method

Sample and site of work:

This study was conducted in the outpatient subjects of a specialized private child psychiatric center in Cairo.

The sample comprised of 30 children and adolescents, with age range 10-18 years compared to control group formed of 20 subjects matched for age and sex with no recorded mental subnormality selected from the relatives of the patient group.

Methods and Procedures

All the cases met the criteria for mental subnormality conducted by ICD-10 criteria for diagnosing different degrees of mental subnormality were included, however no exclusion criteria regarding the gross congenital malformation.

Clinical diagnosis by the following psychometric tools:

- Wechsler intelligence scale for children (WISC).

- Stanford Binet scale.
- Questionnaire to gather information about the characteristics of the person, their accommodation, the provision of day care and numerous data of their behavior and ability.

Assessment of Autistic traits:

Questionnaire for autism of (Wing, 1988.) Including abnormalities in: -

- Social interaction.
- Social communication.
- Social imagination.
- Repeated patterns of self-chosen activities.
- No language or echololia.
- Abnormal responses to sensory stimuli and stereotypes.

The questionnaire was administered by staff-which included inter-rater reliability testing.

Five questions were considered to address the autistic traits are:

- A- Little or no speech or meaningless echololia.
- B- Quality of social interaction that is either aloof (not interacting, indifferent and bizarre, or only interaction to obtain needs), Unwarm, peculiar social interaction.
- C- Lack of empathy (Lack of awareness of people's feelings).
- D- Presence of either constant or sporadic stereotypes.

Presence of elaborate routine obsessional behaviors. Although lack of speech could be interpreted within the autistic continuum as well as a developmental problem but

detailed history for the onset of symptom will achieved solve this problem.

Maladaptive behavior:

Assessed by adaptive behavior scale (the second version) for children and adults Nohara et al., 1974. The questionnaire included enquiry about the person's behavior. This included: whether the person was aggressive destructive, noisy, excessively active, sought attention, uncooperative, untruthful, antisocial or sexually delinquent, whether the person wandered or run away, disturbed other at night, scattered or threw objects or displayed temper tantrums.

Behavioral problems were classified according to whether they occurred, or whether they were severe or frequent in nature.

Results

A- Demographic data and clinical characteristics:

Our sample studied composed of patients from both sexes. Their ages ranged from 10 to 18 years with a mean age of 14.7 ± 2.3 years for males and 16.7 ± 3.1 years for female. The sample size was formed of 18 males and 12 females with a percent of 55% to 45% respectively.

Information gathered from the 30 children and adolescents with mental retardation were analyzed for identification of different grades of mental retardation among the sample into (n=14) moderate (n=10) severe and profound mental retardation (n=6). (Table1)

By analyzing the data obtained estimating the presence of autistic traits in mentally retarded population we find that 16 patients (53.8%) had non-of the five autistic of the

remainder, 5 patients (42.9%) have one autistic traits, 3 (28.7%) have two traits, 3(21.4%) have 3 while 2 children (14.2%) have 4 autistic traits and only one patients (7.1%) has the overall five autistic traits

For the purpose of the analysis the last two groups were amalgamated for statistical issues

B- Association of Mental retardation and Autistic traits: -

The presence of autistic traits with the mentally retarded population is considered an important point in this work, our data revealing that autistic traits studied were associated with severe and profound learning disabilities ($X^2 = 658.1$ $P < 0.001$). The analysis of traits among individuals with LD showed that limited or absent empathy was the most common symptom occurring in 41% of the sample, followed by 21% of children are characterized by stereotypes behavior 16.7 has minimal speech or echolalia, 11% of the individual have poor social interaction and the least percentage 4% have elaborating routines in their lives (Fig 1).

C- Association of autistic traits with challenging behaviors: -

Autistic traits were positively associated with the presence of wide range of challenging behaviors, including that occurred frequently and severely. Ten of the 14 individual with autistic traits showed severe challenging behavior compared with 8 (50%) of those with no autistic traits ($N = 16$).

In the sample studied severe challenging behavior were more correlated statistically with patients with more than 2 autistic traits ($X^2 - 231.5$ df: 2 $P < 0.001$).

Egyptian career interviews addressed more prevalent 14 variables according to Sbayasachy rating scale the increased number of challenging behavior recorded directly correlated with the increased number of autistic traits present ($X_2 = 384.3$ df: 2 $P < 0.005$).

Challenging behavior employed by the caregiver including physical aggression (P

> 0.05), destruction of property ($P < 0.01$), self-injury ($P < 0.05$), excessively active ($P > 0.05$), excessively nosing ($P > 0.05$), verbal abuse ($P < 0.001$) autistic behavior ($P < 0.01$) are that most relevant symptoms described by the caregiver and increased by the presence of more than 2 autistic traits.

Fig '1' Bar chart showing the presence of different autistic traits in LD.

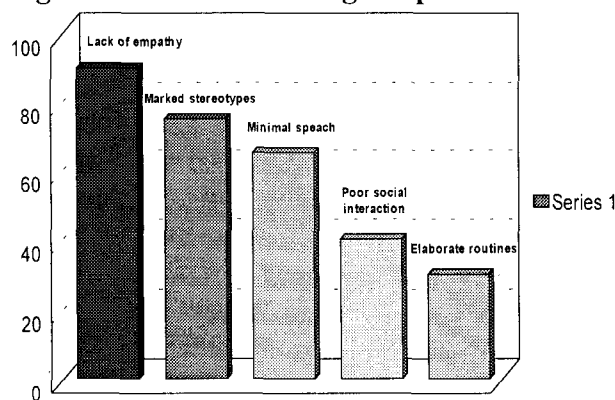


Table (1): Number and percentage of patient with different degree of LD:

IQ	Mild	Moderate	Severe	Profound
	50-69	35-44	20-34	< 20
No	14	20	4	2
%	48%	33%	14%	5%

Table (2): Showing the number of autistic traits present in different degree of LD sample:

IQ	Mild		Moderate		Severe & profound	
	No	%	No	%	No	%
LD patients with autistic traits	7	25	3	33	5	92
Nbr autistic traits	2		3		3	

Table (3): Presentation of challenging behavior in LD children with no autistic traits: -

Challenging behavior	No autistic traits (nbr=16)		Control (nbr=15)		T	P
	Mean	DS	Mean	DS		
Physical aggression	68.1	15.4	59.5	14.7	17	0.08
Destruction of property	75.4	12.8	60.2	18.1	2.9	<u>0.005</u>
Self-injury	82.9	10.3	38.2	11.6	7.1	<u>0.001</u>
Excessively activity	77.8	9.9	9.6	10.09	2.9	0.08
Excessively noisy	71.4	9.3	71.4	9.1	0.35	0.72
Verbal abuse	81.6	10.1	58.1	12.3	6.8	<u>0.005</u>
Antisocial	73.9	12.8	59.9	18.4	2.9	<u>0.005</u>
Untruthfulness	70.6	11.5	94.7	12.7	6.8	0.63
Wanders	71.5	10.3	61.8	8.2	3.2	0.05
Throws objects	65.1	15.2	60.2	16.3	1.9	0.09
Disturbs other	61.2	19.3	59.9	14.12	1.7	0.07

Table (4): Presentation of challenging behavior in LD children with one autistic trait: -

Challenging behavior	No autistic traits (nbr=16)		Control (nbr=15)		T	P
	Mean	DS	Mean	DS		
Physical aggression	69.7	14.2	59.5	14.7	2.3	0.07
Destructive of property	79.4	12.8	60.2	18.1	2.9	<u>0.005</u>
Self-injury	85.3	10.7	58.5	11.6	3.9	<u>0.001</u>
Excessively active	79.3	9.7	69.2	10.9	8.9	0.09
Excessively noisy	72.2	8.1	71.3	9.1	0.29	0.04
Verbal abuse	73.5	11.3	58.1	12.3	7.5	0.03
Antisocial	63.7	12.7	39.9	18.4	2.9	0.05
Untruthfulness	73.3	11.8	94.7	12.1	6.7	0.02
Wanders	69.2	14.5	61.8	8.2	1.5	0.07
Throws objects	63.5	15.7	60.2	16.3	1.5	0.09
Disturbs other	63.2	19.5	59.9	14.2	1.9	0.05

Table (5): Presentation of challenging behavior in LD children with 4 to 5 autistic traits

Challenging behavior	No autistic traits (nbr=16)		Control (nbr=15)		T	P
	Mean	DS	Mean	DS		
Physical aggression	78.3	12.8	59.5	14.7	2.3	0.01
Destruction of property	78.7	13.5	60.2	18.1	2.4	<u>0.004</u>
Self-injury	83.5	10.1	38.5	11.6	8.3	<u>0.001</u>
Excessively activity	80.9	4.8	69.2	10.9	3.4	<u>0.005</u>
Excessively noisy	69.3	8.3	71.3	9.1	3.9	<u>0.001</u>
Verbal abuse	71.2	11.5	58.2	12.3	7.9	<u>0.002</u>
Antisocial	65.9	3.7	59.9	18.4	2.3	0.002
Untruthfulness	63.7	19.2	94.7	12.1	2.4	<u>0.001</u>
Wanders	61.2	14.9	61.5	8.2	5.1	0.09
Throws objects	62.3	10.3	60.2	16.3	1.9	0.02
Disturbs other	67.3	17.3	39.9	14.2	2.3	0.05

More analysis of data revealed that autistic traits were associated causing physical hurt to other ($P < 0.01$) and causing it to the extend that required medical or nursing attention. Sixteen percent of individuals sustained self-injurious behavior were associated with the number of autistic traits ($X^2=65.3$ $df = 4$ $p < 0.001$), 6% of them required regular and nursing attention.

Discussion

Autistic traits were associated with severe and profound learning disabilities. This is compatible with the organic and neurobiological theories of the pathogenesis of autism. While the precise prevalence of autism or autistic syndrome is questionable, this study demonstrates autistic traits to be common among children and young adults. Approximately 40% of this population with deranging disabilities showed the presence of one or more autistic traits although very few demonstrated all five. These results were in agreement with other studies done over on adult population with different subtypes of learning disabilities

demonstration that 30-40% of this population have few autistic traits (Bhaumilk et al, 1997). The prevalence of autistic traits was more common in severe and profound learning disability more than mild and moderate subtype, this was also confirmed by other results published by Sabyasachy in 1997. The presence of autistic traits was more common in the younger age group although some were present throughout the different age bands. Our results revealing that autistic traits were associated with many challenging behavior as physical aggression to others, destruction of property, self-injury temper-tantrums and excessive activity.

The severity of such behavior were more common as the number of autistic traits increased. Those individuals with autistic traits were less likely to live with their parents but almost institutionalized. Many behavioral problems as mentioned above are difficult to manage in ordinary domestic settings.

Lastly, we can conclude that the persuasive developmental disorder autism as a syndrome or as autistic traits present with the individual with learning disability have a great impact in treatment plan and rehabilitation program as well as the tide association. Between the autistic traits and the challenging behavior interfering with their lives at home. (Bishry et al., 1997)

A follow-up symptom among severely and profoundly mentally retarded patients concluded that certain symptoms association with pervasive developmental disorder tend to persist with age in particular to withdrawal, stereotypes and gaze avoidance. Further follow-up studied should be carried out over the Egyptian population to verify these results.

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الأنماط الذاتية و تحديات السلوك في الأطفال المصابين بصعوبات التعلم (التخلف العقلي) : آفاق جديدة في خطة العلاج

يهدف البحث إلى دراسة العلاقة بين مرض الأنماط الذاتية في الأطفال المصابين بصعوبات التعلم (التخلف العقلي) واضعين في الاعتبار أسلوب سلوك التحدي و قد طبق البحث على ثلاثين طفلاً تتراوح أعمارهم بين ١٠ إلى ١٨ سنة مصابون بمرض صعوبة التعلم وفقاً للتصنيف الدولي العاشر للأمراض النفسية منتقنين من مركز لعلاج الأمراض النفسية للأطفال بالقاهرة.

أظهرت النتائج أن ٤٠% من الحالات الشديدة الإصابة بالتخلف العقلي تعاني من الأنماط الذاتية وسلوك التحدي و أن سلوكيات تحطيم الذات و تحطيم الأشياء تعتبر من أهم المميزات لهذه العينة .

مما تقدم نجد أن تشخيص الحالات على أنها صعوبات تعليمية (تخلف عقلي) لا ينفى وجود مؤشرات أخرى للمسببات المرضية مثل مرض الذاتية عن الأطفال.

لذلك يجب على المعالج أن يضع في الاعتبار معالجة الأمراض المصاحبة للتخلف العقلي.