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# MEDLINE Search on Asperger's Syndrome

**By, Ivan K. Goldberg, M.D.**

1: Rev Bras Psiquiatr. 2003 Jun;25(2):103-9.

Asperger syndrome: an update.

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This article provides an overview of the history and clinical features of Asperger syndrome, and considers guidelines for clinical assessment and treatment. A review of issues related to external validity is provided, which points out the limitations of current research, and lists several potentially beneficial areas of investigation into the nosologic status of the condition. It concludes with a discussion of the unequivocal need of individuals with severe social disabilities for comprehensive and adequate educational services and other treatments irrespective of the fact that the validity and the utility of this specific diagnostic concept is far from resolved.

Publication Types:

Review

Review, Tutorial

PMID: 12975708 [PubMed - indexed for MEDLINE]

2: J Autism Dev Disord. 2003 Jun;33(3):259-69.

Further evidence of preserved priming and impaired recall in adults with Asperger's syndrome.

Gardiner JM, Bowler DM, Grice SJ.

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Two experiments compared incidental (implicit) and intentional (explicit) memory performance in adults with Asperger's syndrome and individually matched controls. Experiment 1 involved perceptual tests using word fragment cues, following study tasks in which the participants either generated the words from contextual cues or read the words alone, with no contextual cues. Experiment 2 involved conceptual tests using paired associate cues, following study tasks in which the paired associates were rated either for their relatedness or for their readability. Performance in both the incidental tests was similar for both groups. Performance in both the intentional tests was also similar for both groups, with one exception. The adults with Asperger's syndrome were more likely to falsely recall words that had not actually been studied. These findings further delimit the nature of memory impairments in adults with Asperger's syndrome, which seem restricted to certain aspects of episodic memory that include the tendency to make more intrusion errors in recall.

PMID: 12908829 [PubMed - indexed for MEDLINE]

3: J Autism Dev Disord. 2003 Jun;33(3):253-7.

The comprehension of humorous materials by adolescents with high-functioning autism and Asperger's syndrome.

Emerich DM, Creaghead NA, Grether SM, Murray D, Grasha C.

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This study investigated the ability of adolescents with Asperger's syndrome or high-functioning autism and an age-matched group of typical adolescents to comprehend humorous materials. The analysis of humor focused on picking funny endings for cartoons and jokes. As expected, the adolescents with autism had significantly poorer comprehension of cartoons and jokes. Both groups had more difficulty with the joke than the cartoon task, but when compared with the typical group, the adolescents with autism performed significantly poorer. Examination of the error patterns revealed that subjects with autism had difficulty handling surprise and coherence within humorous narratives.

PMID: 12908828 [PubMed - indexed for MEDLINE]

4: J Autism Dev Disord. 2003 Jun;33(3):239-51.

Narrative ability in high-functioning children with autism or Asperger's syndrome.

Losh M, Capps L.

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This study examines the narrative abilities of 28 high-functioning children with autism or Asperger's Syndrome and 22 typically developing children across two different discourse contexts. As compared with the typically developing children, the high-functioning group performed relatively well in the storybook context but exhibited difficulty imbuing their narratives of personal experience with the more sophisticated characteristics typically employed by the comparison group. Furthermore, children with autism or Asperger's Syndrome demonstrated impairments inferring and building on the underlying causal relationships both within and across story episodes in both narrative contexts. Findings further revealed that the narrative abilities of children with autism or Asperger's Syndrome were associated with performance on measures of emotional understanding, but not theory of mind or verbal IQ. Findings are discussed in relation to the social and emotional underpinnings of narrative discourse.

PMID: 12908827 [PubMed - indexed for MEDLINE]

5: Gen Hosp Psychiatry. 2003 Jul-Aug;25(4):284-8.

Screening for autism spectrum disorder in adult psychiatric outpatients in a clinic in Taiwan.

Chang HL, Juang YY, Wang WT, Huang CI, Chen CY, Hwang YS.

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Patients with adult autism spectrum disorder (ASD) continue to suffer from impairment in socialization and communication skills, and a proportion of them may develop psychiatric symptoms. It is thus likely that physicians in adult psychiatric departments may see a number of patients with ASD. Identification of patients with ASD is helpful and important for rehabilitation. This study estimated the prevalence of ASD among adult psychiatric outpatients in a Taiwanese medical center. A total of 660 patients were screened with Nylander and Gillberg's "Autism Spectrum Disorder in Adult Screening Questionnaire." Patients with high scores then underwent a diagnostic clinical interview conducted by child psychiatrists. Four patients (0.6%) were found to have ASD.

PMID: 12850661 [PubMed - indexed for MEDLINE]

6: Dev Psychopathol. 2003 Winter;15(1):73-94.

Differences in assertive speech acts produced by children with autism, Asperger syndrome, specific language impairment, and normal development.

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The assertive speech acts of children with autism ( $n = 12$ ) and Asperger syndrome ( $n = 12$ ), individually matched to children with specific language impairment (SLI;  $n = 24$ ) and children with normal development ( $n = 24$ ) were studied in the context of gently structured conversation. These children also completed the false belief test of theory of mind. The children with autism used significantly lower proportions of assertions involving explanations and descriptions than the children with SLI or normal development and significantly lower proportions of assertions involving internal state and explanations than the children with Asperger syndrome. The children with autism used a higher proportion of assertions involving identifications than any other group. The assertions of the children with Asperger syndrome were generally not different than those of the children with SLI or normal development except for a higher proportion of assertions involving own internal state. Further analysis of the mental assertions revealed that the children with autism and Asperger syndrome predominantly referred to desire and made few references to thought and belief, whereas the children with SLI and those with normal development used a higher proportion of references to thought and belief.

PMID: 12848436 [PubMed - indexed for MEDLINE]

7: J Child Psychol Psychiatry. 2003 May;44(4):520-8.

Predictors of outcome among high functioning children with autism and Asperger syndrome.

Szatmari P, Bryson SE, Boyle MH, Streiner DL, Duku E.

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**BACKGROUND:** The objective of this paper is to assess the extent to which measures of cognitive abilities taken in an inception cohort of young high functioning children with autism and Asperger syndrome predict outcome roughly two and six years later. **METHOD:** Children who received a diagnosis of autism or Asperger syndrome (AS) and who had a nonverbal IQ score in the 'non-retarded' range were included in the inception cohort. Measures of language and nonverbal skills were taken when the children were 4-6 years of age and outcome assessments were completed when the children were 6-8 and 10-13 years of age. The three outcome measures consisted of scales of adaptive behaviours in socialisation and communication and a composite measure of autistic symptoms (abnormal language, abnormal body and object use, difficulties

relating to others, sensory issues and social and self-help difficulties). RESULTS: The explanatory power of the predictor variables was greater for communication and social skills than for autistic symptoms. The power of prediction was stable over time but did differ by PDD subtype. In general, the association between language skills and outcome was stronger in the autism group than in the AS group. CONCLUSIONS: These results support the emphasis of early intervention programmes on language but more work needs to be done on understanding variables that influence outcome in social skills and autistic behaviours, particularly in those with AS.

PMID: 12751844 [PubMed - indexed for MEDLINE]

8: Autism. 2003 Mar;7(1):99-110.

Psychosocial functioning in a group of Swedish adults with Asperger syndrome or high-functioning autism.

Engstrom I, Ekstrom L, Emilsson B.

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This study reports on psychosocial functioning in Swedish adults with Asperger syndrome (AS) or high-functioning autism (HFA). A systematically selected sample of patients and relatives was interviewed concerning their psychosocial situation. The majority was living independently. All persons but one were unemployed. None was married and none had children. Only a few had some kind of partner. Most persons needed a high level of public and/or private support. The overall adjustment was rated good in 12 percent, fair in 75 percent and poor in 12 percent. Adult persons with AS/HFA have extensive need for support from their families and/or society. This information is important in order to provide adequate interventions that are in accordance with the expressed needs of the individuals themselves.

PMID: 12638767 [PubMed - indexed for MEDLINE]

9: J Paediatr Child Health. 2003 Mar;39(2):81-2.

Is there an increase in the prevalence of autism spectrum disorders?

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This report summarizes recent prevalence estimates for autism spectrum disorders and outlines possible reasons for an apparent increase in the numbers of children diagnosed with autism and Asperger syndrome.

Publication Types:

Review

Review, Tutorial

PMID: 12603792 [PubMed - indexed for MEDLINE]

10: Curr Biol. 2003 Feb 18;13(4):339-41.

Impaired mirror-image imitation in Asperger and high-functioning autistic subjects.

Avikainen S, Wohlschlager A, Liuhanen S, Hanninen R, Hari R.

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Imitation is crucial for proper development of social and communicative skills. Here, we argue that, based on an error analysis of a behavioral imitation task, adult Asperger and high-functioning autistic subjects suffer from an intriguing deficit of imitation: they lack the natural preference for imitation in a mirror-image fashion. The imitation task consisted of a simple movement sequence of putting a pen with the left or right hand into a green or a blue cup using one of two possible grips. The subjects were asked to imitate the experimenter's hand movements either using the crossed hand (e.g., the subject's right hand corresponding to the experimenter's right hand) for imitation or to imitate as if looking in a mirror (e.g., the subject's left hand corresponding to the experimenter's right hand). When people normally view other persons face-to-face, they prefer to imitate as in a mirror, and observation of mirror-image-like movements speeds up performance in nonimitative tasks. However, our autistic subjects, defective in social cognition, did not profit from mirror-image movements of others. These results provide a new insight into the difficulties that autistic subjects face in viewing and understanding actions of others.

PMID: 12593801 [PubMed - indexed for MEDLINE]

11: Pediatr Nurs. 2002 Nov-Dec;28(6):565-70.

Differences in stress and coping for mothers and fathers of children with Asperger's syndrome and nonverbal learning disorders.

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Research conducted on families of children with disabilities shows that family cohesion and positive family outcomes are influenced by how mothers and fathers cope with raising their child with disabilities. This study was designed to examine stress and coping differences between mothers and fathers ( $n = 103$ ) of children with Asperger's syndrome (AS) and nonverbal learning disorders (NLD). A repeated measure design was used to compare how mothers and fathers cope with caring for a particular child to control for differences in the severity and nature of the disability across children. Few studies that compare mothers and fathers do so at the couple level. Responses indicated that mothers had higher rates of stress related to family problems and pessimism about their child's future, higher rates of antidepressant use, and higher rates of therapy use than did fathers. Mothers found some coping strategies more helpful than fathers did. Maternal education and child's age also were related to some stress and coping variables. Implications for nurses and future research are discussed.

PMID: 12593341 [PubMed - indexed for MEDLINE]

12: Int J Circumpolar Health. 2002;61 Suppl 2:80-9.

Asperger syndrome with comorbid emotional disorder--treatment with psychoanalytic psychotherapy.

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The purpose of psychoanalytic psychotherapy is to help the child to grow and develop normally. Children who are able to play, process their problems in the play. The therapist's role is to engage with the play and verbalize the emotions and the interactions demonstrated in it. This case-presentation illustrates how the child can express and work his inner fears and anxieties in play-situations with the therapist and shows how this interaction helps the child to develop and individuate. Children diagnosed as having Asperger syndrome may have emotional problems, in which case psychoanalytical psychotherapy is one of the means of helping the child and the family.

Publication Types:  
Case Reports

PMID: 12585823 [PubMed - indexed for MEDLINE]

13: Neurosci Lett. 2003 Mar 6;338(3):197-200.

Deficient auditory processing in children with Asperger Syndrome, as indexed by event-related potentials.

Jansson-Verkasalo E, Ceponiene R, Kielinen M, Suominen K, Jantti V, Linna SL, Moilanen I, Naatanen R.

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Asperger Syndrome (AS) is characterized by normal language development but deficient understanding and use of the intonation and prosody of speech. While individuals with AS report difficulties in auditory perception, there are no studies addressing auditory processing at the sensory level. In this study, event-related potentials (ERP) were recorded for syllables and tones in children with AS and in their control counterparts. Children with AS displayed abnormalities in transient sound-feature encoding, as indexed by the obligatory ERPs, and in sound discrimination, as indexed by the mismatch negativity. These deficits were more severe for the tone stimuli than for the syllables. These results indicate that auditory sensory processing is deficient in children with AS, and that these deficits might be implicated in the perceptual problems encountered by children with AS.

PMID: 12581830 [PubMed - indexed for MEDLINE]

14: Acta Psychiatr Scand. 2003 Jan;107(1):73-5; discussion 75-6.

Asperger's disorder: a case report of repeated stealing and the collecting behaviours of an adolescent patient.

Chen PS, Chen SJ, Yang YK, Yeh TL, Chen CC, Lo HY.

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OBJECTIVE: To discuss special behavioural problems shown by a patient with Asperger's disorder from adolescence onward. METHOD: The case and treatment of a 21-year-old male patient is described. RESULTS: A 21-year-old male developed obstinate stealing behaviours when he was 17 years old. He was regarded as a schizophrenic at first, and was suspected of kleptomania later. Asperger's disorder was diagnosed after we reconsidered the relationship between the schizoid psychopathy in childhood and the stealing behaviours which occurred in adolescence. CONCLUSION: A wide variety of bizarre behaviours and so-called borderline behaviours occur in late adolescence and adult life of patients with Asperger's disorder. But classic schizophrenia is very rare. Psychiatrists unacquainted with the clinical diagnosis/context may find it difficult to evaluate 'concrete', 'childish', or 'bizarre' symptoms in patients with Asperger's disorder, and thus are prone to misdiagnose them as having schizophrenia disorders or other similar disorders.

Publication Types:  
Case Reports

PMID: 12558546 [PubMed - indexed for MEDLINE]

15: J Autism Dev Disord. 2002 Dec;32(6):611-4.

Review of the Asperger Syndrome Diagnostic Scale.

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The Asperger's Syndrome Diagnostic Scale (2001) was reviewed to determine its reliability, validity, and clinical utility in the diagnostic process for pervasive developmental disorder, specifically Asperger's syndrome. Concerns were raised about validity of the instrument, population upon which the instrument was normed, capability of the instrument to provide accurate differential diagnoses, and properties of the scale. The measure was determined to hold promise as a research tool, but there appears to be little evidence that it can distinguish among the various types of pervasive developmental disorder or diagnosis Asperger syndrome specifically.

Publication Types:  
Validation Studies

PMID: 12553597 [PubMed - indexed for MEDLINE]

16: Child Adolesc Psychiatr Clin N Am. 2003 Jan;12(1):143-63, vii-viii.

The challenge of adolescents and adults with Asperger syndrome.

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Despite the rapid growth of interest in Asperger disorder in children, there continues to be a lack of awareness of the diagnosis and its implications for adolescents and adults. The reasons for this lack of awareness lie in the history of the disorder and in the historical development of mental health services. Because, as Santayana wrote, "Those who cannot remember the past are condemned to repeat it," this article reprises some of the history given elsewhere in this issue, but in a highly partial way, to bring out what the author believes to be the



historically grounded prejudices that are the first challenge to anyone wanting to help adolescents and adults with Asperger syndrome.

Publication Types:  
Case Reports

PMID: 12512403 [PubMed - indexed for MEDLINE]

17: Child Adolesc Psychiatr Clin N Am. 2003 Jan;12(1):123-41.

Behavioral forms of stress management for individuals with Asperger syndrome.

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Although many children and youth with AS exhibit anxiety that may lead to challenging behaviors, stress and subsequent behaviors should be viewed as an integral part of the disorder [36]. As such, it is important to understand the cycle of behaviors to prevent seemingly minor events from escalating. Although understanding the cycle of tantrums, rage, and meltdowns is important, behavior changes will not occur unless the function of the behavior is understood and the student is provided instruction and support in using (1) strategies that increase social understanding and problem solving, (2) techniques that facilitate self-understanding, and (3) methods of self-calming. Because little research exists on the cycle of behaviors exhibited by students with AS and interventions appropriate at each stage, a systematic program of research is required to identify which techniques are most appropriate for children and youth, the context in which they can be used, and methods to ensure that individuals with AS generalize these skills to home, school, and community.

PMID: 12512402 [PubMed - indexed for MEDLINE]

18: Child Adolesc Psychiatr Clin N Am. 2003 Jan;12(1):47-63, vi.

Outcome research in Asperger syndrome and autism.

Tsatsanis KD.

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This article presents findings from the outcome literature on autism, Asperger syndrome (AS), and related disorders. The discussion of outcome principally focuses on life adaptation, but also considers outcome in AS in relationship to other diagnostic groups and across time. The current research in this area is neither substantial nor systematic. Thus, in this examination of the literature, the goal is to highlight salient findings, but also to put forward questions that might direct meaningful research in this area for the future and to consider implications for treatment.

PMID: 12512398 [PubMed - indexed for MEDLINE]

19: Child Adolesc Psychiatr Clin N Am. 2003 Jan;12(1):23-45.

Strategies for pharmacologic treatment of high functioning autism and Asperger syndrome.

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The treatment of complex, polymorphous disorders like HFA/AS always brings a particular challenge to pharmacotherapy. Additionally, the specific characteristics presented by HFA/AS introduce unique complications to patient care and place unusual demands on a clinician's skill and experience. To provide safe and effective treatment, the clinician must understand the core features of the disorder and the manifestations of the condition in his or her patient. Furthermore, a thorough understanding of the family, school, and community resources and limitations is necessary. Once an assessment has been made, focusing on target symptoms provides a crucial framework for care. Knowing manifestations of symptoms and characterizing their distribution and behavior in that patient is most important. For patients with HFA/AS it is particularly essential to coordinate behavioral and pharmacologic objectives. The target symptoms should be tracked carefully and placed into a priority system that is based on the risks and disability they create for the patient. The skill of pharmacotherapy also means setting out realistic expectations, keeping track of the larger systems of care at school and home, and collaboration with parents and care providers. There is an expanding range and pace of biologic and intervention research into HFA/AS. The genetic work has produced exciting leads that are likely to be helpful to future generations [82-84], but the task of clinicians is to tend to today's patients. As we discover more about the complex neural circuitry subserving repetitive behaviors, reward systems, and social cognition, there are good reasons to believe our treatments will become more sophisticated and specific. Psychopharmacology is also moving to design medications that target more specific populations of receptor and brain functions. This is likely to produce medicines that have fewer side effects, are more effective, and are more symptom-specific. Pharmacotherapy is not the ultimate treatment for HFA/AS but it has a definite place. Medication can be a critical element in a comprehensive treatment plan. There is a wider range of medications with more specific biologic effects than ever before. For patients with HFA/AS these newer agents are safer and less disruptive. When paired with clinicians who are becoming more skilled at recognizing and managing symptoms, patients have a greater opportunity to reach their potential and lead pleasurable lives.

PMID: 12512397 [PubMed - indexed for MEDLINE]

20: Child Adolesc Psychiatr Clin N Am. 2003 Jan;12(1):1-13, v.

Asperger syndrome: diagnosis and external validity.

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This article provides an overview of the history and clinical features of Asperger syndrome and considers guidelines for clinical assessment and treatment. A review of issues related to external validity is provided that points out the limitations of current research and lists several potentially beneficial areas of investigation into the nosologic status of the condition. It concludes with a discussion of the unequivocal need of individuals with severe social disabilities for comprehensive and adequate educational services and other treatments, regardless of the fact that the validity and usefulness of this specific diagnostic concept is far from resolved.

Publication Types:

Review

Review, Tutorial

PMID: 12512395 [PubMed - indexed for MEDLINE]

21: MCN Am J Matern Child Nurs. 2002 Nov-Dec;27(6):349-54.

Maternal discipline of children with Asperger Syndrome and nonverbal learning disorders.

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**PURPOSE:** This study investigated how often mothers of children with Asperger Syndrome and nonverbal learning disorders reported using either psychological aggression (shouting, cursing, name calling) or corporal punishment (spanking, hitting) when disciplining their children, and also examined the correlates of these methods of discipline. **DESIGN AND METHODS:** A descriptive study of 411 mothers with children between ages 4 and 17 years. Mothers were recruited by placing an invitation on two national Web sites; one for parents of children with Asperger syndrome and one for parents of children with nonverbal learning disabilities. An anonymous, mailed survey was used and a 70% response rate was obtained. The Conflict Tactics Scale-Child Form was used to measure psychological aggression and corporal punishment. Univariate analyses were used to describe the child and maternal characteristics and maternal rates of discipline. The correlates of maternal discipline were measured using bivariate analyses. **RESULTS:** The overall reported use of any corporal punishment (slaps on the hand, arm, and leg; hitting on the buttocks with a belt or brush; spanking on the buttocks with a hand; pinching and shaking) during the past year was 58%. The yearly use of any psychological aggression (screaming and yelling, cursing, threatening to hit or spank, threatening to kick out or send away, calling the child "dumb" or "lazy") was 95%. Spanking declined with increasing age of the child and the mother. Mothers who used psychological aggression were more likely to use corporal punishment with their child. **CLINICAL IMPLICATIONS:** Informed nurses working with these populations can use the results of this study to help address the stresses felt by these mothers, and to teach alternative strategies of coping to mothers who are in danger of using psychological aggression and corporal punishment.

PMID: 12439137 [PubMed - indexed for MEDLINE]

22: Aust N Z J Psychiatry. 2002 Dec;36(6):762-70.

A clinical and neurobehavioural review of high-functioning autism and Asperger's disorder.

Rinehart NJ, Bradshaw JL, Brereton AV, Tonge BJ.

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**OBJECTIVE:** To compare, contrast and review clinical and neuropsychological studies of high-functioning autism and Asperger's disorder. **METHOD:** This paper reviews past and contemporary conceptualizations of autism and Asperger's disorder, together with epidemiological information, genetic and neurobehavioural findings. This paper focuses on neurobehavioural studies, in particular, executive functioning, lateralization, visual-perceptual and motor processing, which have provided an important source of information about the potential neurobiological dissociation that may exist between autism and Asperger's disorder. **RESULTS:** The clinical profiles of autism and Asperger's disorder contain a mixture of psychiatric and neurological symptoms:

for example, movement abnormalities (i.e. stereotyped behaviours, hand flapping, toe walking, whole-body movements), atypical processing of parts and wholes, verbal and non-verbal deficits, ritualistic/compulsive behaviour, disturbances in reciprocal social interaction and associated depression and anxiety. The considerable clinical overlap between autism and Asperger's disorder has led many to question whether Asperger's disorder is merely a mild form of autism, or whether it should be considered as a separate clinical entity. **CONCLUSION:** In light of the growing body of epidemiological information, genetic, and neurobehavioural evidence that distinguishes autism from Asperger's disorder, it is premature to rule out the possibility that these disorders may be clinically, and possibly neurobiologically separate.

Publication Types:

Review

Review, Tutorial

PMID: 12406118 [PubMed - indexed for MEDLINE]

23: Arch Gen Psychiatry. 2002 Oct;59(10):885-91.

Asperger syndrome: a proton magnetic resonance spectroscopy study of brain.

Murphy DG, Critchley HD, Schmitz N, McAlonan G, Van Amelsvoort T, Robertson D, Daly E, Rowe A, Russell A, Simmons A, Murphy KC, Howlin P.

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**BACKGROUND:** Asperger syndrome (AS; an autistic disorder) is associated with impaired social skills and obsessional/repetitive behavior. Patients with autism have significant abnormalities in the frontal lobe and frontoparietal connectivity. Nobody has examined the relationship between abnormalities in the frontal and parietal lobes and clinical symptoms in people with AS. **METHODS:** We used in vivo proton magnetic resonance spectroscopy to examine neuronal integrity of the medial prefrontal and parietal lobes in 14 non-learning-disabled adults with AS and 18 control subjects (of similar sex, age, and IQ). We obtained measures of the prefrontal lobe in 11, the parietal lobe in 13, and both lobes in 10 subjects with AS. We measured concentrations and ratios of N-acetylaspartate (NAA), creatine and phosphocreatine (Cr + PCr), and choline (Cho). Levels of NAA, Cr + PCr, and Cho are indicators of neuronal density and mitochondrial metabolism, phosphate metabolism, and membrane turnover. Frontal metabolite levels were correlated with scores on the Yale-Brown Obsessive Compulsive Scale and the Autism Diagnostic Interview. **RESULTS:** Subjects with AS had a significantly higher prefrontal lobe concentration of NAA ( $z = -3.1$ ;  $P = .002$ ), Cr + PCr ( $z = -2.2$ ;  $P = .03$ ), and Cho ( $z = -2.9$ ;  $P = .003$ ). Increased prefrontal NAA concentration was significantly correlated with obsessional behavior ( $\tau = 0.67$ ;  $P = .005$ ); increased prefrontal concentration of Cho, with social function ( $\tau = 0.72$ ;  $P = .02$ ). We found no significant differences in parietal lobe metabolite concentrations. **CONCLUSION:** Subjects with AS have abnormalities in neuronal integrity of the prefrontal lobe, which is related to severity of clinical symptoms.

PMID: 12365875 [PubMed - indexed for MEDLINE]

24: Issues Ment Health Nurs. 2002 Sep;23(6):605-15.

Asperger's syndrome: implications for nursing practice.

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PeggyMarshall@bigplanet.com

The most common disorders within the category of Pervasive Developmental Disorders (PDD) are the Autistic Disorders. In the 1994 Diagnostic and Statistical Manual-IV, Asperger's Disorder became a distinct diagnosis within the Autistic category, as part of the disorders first diagnosed in childhood and adolescence. The terms Asperger's Disorder and Asperger's Syndrome are used interchangeably. Attention to and knowledge of Asperger's Syndrome (AS) are necessary to differentiate it from closely related disorders that have overlapping symptoms. There is much discussion about different definitions of Asperger's, different viewpoints of experts in the field, and the diagnostic dilemmas related thereto. Last, and most important, are the nursing implications. Nurses are in a position to identify children with Asperger's early. After identification, the necessary referrals, treatment options, support, and follow-up are essential for these children. Nurses need more knowledge about this disorder and need to be proactive in defining their role to help children with the disorder in the schools and the community.

Publication Types:

Review

Review, Tutorial

PMID: 12217224 [PubMed - indexed for MEDLINE]

25: Autism. 2002 Sep;6(3):287-97.

Temperament and character in adults with Asperger syndrome.

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To study the personality characteristics of adults with Asperger syndrome, and investigate the value of self-rating personality inventories, we administered the Temperament and Character Inventory (TCI) to 31 outpatients with Asperger syndrome. The TCI is a self-rating personality inventory that has been validated in the Swedish general population. The results were compared with age- and sex-matched norm groups. Participants with Asperger syndrome scored significantly higher on harm avoidance and lower on self-directedness and cooperativeness. Reward dependence and novelty seeking tended to be low. They also had significantly higher rarity scores, reflecting idiosyncratic perspectives. The most common temperament configurations were 'obsessional', 'passive-dependent' and 'explosive'. Character, reflecting conceptual maturity, was poorly developed in the majority of our subjects. The self-ratings of persons with Asperger syndrome thus indicated anxious personalities with coping difficulties in the areas of social interaction and self-directedness, a picture corresponding to the clinical descriptions of Asperger syndrome.

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26: Med Sci Law. 2002 Jul;42(3):237-44.

Case history of co-morbid Asperger's syndrome and paraphilic behaviour.

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We report a case of a man with Asperger's syndrome, paraphilic behaviour and convictions for sexual offences. We describe his assessment within a secure mental health setting to determine issues of diagnosis, treatment and risk. We also highlight the difficulty in reducing the risk of further offending because of the apparent ineffectiveness of interventions for the small group with Asperger's syndrome and an offending history. Consequently, they are likely to face long periods in institutional settings.

Publication Types:  
Case Reports

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27: J Autism Dev Disord. 2002 Aug;32(4):263-81.

Asperger syndrome: tests of right hemisphere functioning and interhemispheric communication.

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The primary aim of this investigation was to assess to what extent Rourke's (1989, 1995) nonverbal learning disabilities syndrome (NLD) model resembles the pattern of assets and deficits seen in people with Asperger syndrome (AS). NLD can be characterized by a cluster of deficits primarily affecting nonverbal aspects of functioning, in the presence of proficiency in single word reading and a superior verbal memory. The neurological underpinnings of this syndrome may be dysfunction of white matter affecting right hemisphere functioning and interhemispheric communication. To explore this hypothesis, eight participants with AS (ages 10 to 41 years) were assessed in the following areas: the pragmatics of language and communication, verbal and visual memory, visual-spatial abilities, and bimanual motor skills. Results confirmed the close similarity in the neuropsychologic profiles of NLD and AS.

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28: Kaohsiung J Med Sci. 2002 Apr;18(4):198-204.

Asperger's syndrome and aberrant neurofunctional organization--a case report.

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Asperger's Syndrome(AS) is a severe developmental disorder characterized primarily by marked and sustained difficulties in social interaction and unusual patterns of circumscribed interests and behavioral peculiarities. AS differs from autism primarily in that there is no general delay or retardation in language. A 3. 5

year-old boy with AS was referred for psychological assessment and treatment. When the boy was 23 months old, he was assessed with Bayley Scales of Infant Development (2nd ed.). Both MDI and PDI were within normal limits. After the referral, this boy was assessed with WPPSI-R and then prescribed 5 weekly intervention sessions consisting of communication skills training. At a one week's follow-up the boy was reassessed with Leiter-R. The results of WPPSI-R and Leiter-R showed the boy was in the normal intelligence range. From the second session to the fifth session, the boy's mother recorded 526 of his utterances. According to the analysis of these speech data, the language development for this boy was at Stage V, which indicated that his language development was in the superior range for his age. After 5 intervention sessions, the improvements in the child's communication skills were such that no further sessions were warranted. This boy might represent a case of aberrant neurofunctional organization. He has defects in perceptual organization but has good pattern recognition, which is based on features. It is theorized that his excellent verbal ability competed with the perceptual organization, so that he compensated for perceptual organization with verbal ability. An intervention designed to inhibit verbal compensation and facilitate configural processing is recommended.

Publication Types:  
Case Reports

PMID: 12164013 [PubMed - indexed for MEDLINE]

29: Brain. 2002 Aug;125(Pt 8):1839-49.

Autism, Asperger syndrome and brain mechanisms for the attribution of mental states to animated shapes.

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Ten able adults with autism or Asperger syndrome and 10 normal volunteers were PET scanned while watching animated sequences. The animations depicted two triangles moving about on a screen in three different conditions: moving randomly, moving in a goal-directed fashion (chasing, fighting), and moving interactively with implied intentions (coaxing, tricking). The last condition frequently elicited descriptions in terms of mental states that viewers attributed to the triangles (mentalizing). The autism group gave fewer and less accurate descriptions of these latter animations, but equally accurate descriptions of the other animations compared with controls. While viewing animations that elicited mentalizing, in contrast to randomly moving shapes, the normal group showed increased activation in a previously identified mentalizing network (medial prefrontal cortex, superior temporal sulcus at the temporo-parietal junction and temporal poles). The autism group showed less activation than the normal group in all these regions. However, one additional region, extrastriate cortex, which was highly active when watching animations that elicited mentalizing, showed the same amount of increased activation in both groups. In the autism group this extrastriate region showed reduced functional connectivity with the superior temporal sulcus at the temporo-parietal junction, an area associated with the processing of biological motion as well as with mentalizing. This finding suggests a physiological cause for the mentalizing dysfunction in autism: a bottleneck in the interaction between higher order and lower order perceptual processes.

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30: J Child Psychol Psychiatry. 2002 Jul;43(5):679-90.

Conversational behaviour of children with Asperger syndrome and conduct disorder.

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**BACKGROUND:** Social communication problems in individuals who have Asperger syndrome constitute one of the most significant problems in the syndrome. This study makes a systematic analysis of the difficulties demonstrated with the use of language (pragmatics) in adolescents who have Asperger syndrome. **METHOD:** Recent advances in discourse analysis were applied to conversational samples from a group of children with Asperger syndrome and a matched control group of children with severe conduct disorder. Two types of conversation were sampled from each group, differing in emotional content. **RESULTS:** The results showed that in these contexts children with Asperger syndrome were no more verbose as a group than controls, though they showed a tendency to talk more in more emotion-based conversations. Children with Asperger syndrome, as a group, performed similarly to control subjects in ability to respond to questions and comments. However, they were more likely to show responses which were problematic in both types of conversation. In addition, individuals with Asperger syndrome showed more problems in general conversation than during more emotionally and socially loaded topics. The group with Asperger syndrome was found to contain a small number of individuals with extreme verbosity but this was not a reliable characteristic of the group as a whole.

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31: J Child Psychol Psychiatry. 2002 May;43(4):517-28.

A new 'advanced' test of theory of mind: evidence from children and adolescents with Asperger syndrome.

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**BACKGROUND:** The aim of the present study was to assess the ability of children and adolescents with Asperger syndrome (AS) (N = 21) to infer physical versus mental states on a new 'advanced' test of theory-of-mind - Stories from Everyday Life. The participants in the AS group were of normal intelligence and were compared with an age-matched control group (N = 20) of normally developing children and adolescents. **METHOD:** The test materials comprised 26 short stories or 13 pairs of different types of stories. This contextually complex theory-of-mind battery aimed to record the participants' ability to make inferences about physical as well as mental states. The first part of each story described a physical or mechanical event, and a test question then tested the participants' ability to make an inference about a physical state. The last part of the stories contained two questions, testing the ability to infer a mental state from the story context, e.g., understanding social communication such as a lie, white lie, figure of speech, misunderstanding, double bluff, irony, persuasion, contrary emotions, forgetting, jealousy, intentions, empathy and social blunders. The participants' reaction time and number of prompt questions were also recorded. **RESULTS:** The participants in the AS group showed significantly more problems attributing mental state inferences relative to the control group. They performed considerably better on tasks involving a physical state, but still did less well than the controls. They had a tendency to interpret behaviour and utterances literally, without regard to context, and to choose a physical explanation when a mental state answer was more appropriate. They also needed significantly more prompt questions and used significantly more time than the controls to solve the tasks, especially those involving mental state inference. **CONCLUSIONS:** This study supports earlier findings that individuals with AS/HFA have difficulties attributing mental states in context, but seem to have significantly fewer difficulties inferring physical states. The fact that the clinical group also used significant longer reaction time and needed significantly more prompt questions to solve the tasks relative to the control group may also



be related to their problems in understanding mental states. However, the possibility remains that these difficulties could represent a separate factor - or a distinct 'cognitive style'- suggesting that at least some individuals with AS may be generally slow in solving cognitive tasks.

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32: Psychol Med. 2000 Sep;30(5):1169-87.

Linguistic processing in high-functioning adults with autism or Asperger's syndrome. Is global coherence impaired?

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**BACKGROUND:** Linguistic processing was explored in normally intelligent adults with either autism or Asperger's syndrome, to test if global coherence was impaired. Global coherence is the ability to establish causal connections and interrelate local chunks into higher-order chunks so that most linguistic elements are linked together thematically. Since individuals with autism are hypothesized to have weak central coherence then one would predict that the clinical groups would have difficulty integrating information globally so as to derive full meaning. **METHODS:** Two experiments were designed to test global coherence. Experiment 1 investigated whether individuals on the autism spectrum condition could arrange sentences coherently. Experiment 2 investigated whether they were less able to use context to make a global inference. **RESULTS:** The clinical groups were less able to arrange sentences coherently and use context to make a global inference. **CONCLUSIONS:** The results suggest that individuals on the autism spectrum have impaired global coherence. Arranging sentences and making global inferences correlated highly, suggesting that central coherence may be a unitary force in these different tasks. Of the two clinical groups, the autism group had the greater deficit. The effect that such a deficit would have on one's daily life is discussed, along with possible explanations for the clinical groups' greater difficulty, and suggestions for future research.

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