

PERVASIVE DEVELOPMENTAL DISORDERS

DSM-IV

299.00 Autistic disorder

299.80 Rett's disorder

299.80 Asperger's disorder

299.10 Childhood disintegrative disorder

299.80 Pervasive developmental disorder NOS (including atypical autism)

The category of pervasive developmental disorders is organized in terms of the qualitative degree of impairment in social and communicative functioning. Autism comprises extremely varied manifestations that encompass deficits in cognition, social awareness, communication, affective expression, and motor control. Because of the continuity of the symptomatology, the term *autistic spectrum disorder (ASD)* is recognized in the current literature. ASD may occur with or without a neurological substrate, as in the case of *idiopathic autism*. Age of onset and whether the child developed normally from birth through the first 5 years of life are factors that help differentiate between Rett's disorder or childhood disintegrative disorder. The intractable anxiety, mood lability, perseveration of thought and behavior, and odd social presentation of these children may mimic other psychiatric disorders, including anxiety disorders, schizophrenia, obsessive-compulsive disorder, and the manic phase of bipolar affective disorder. When neurological impairment coexists with the diagnosis, the individual is often low functioning.

ETIOLOGICAL THEORIES

Psychodynamics

Autistic children are fixed in the presymbiotic stage of development. These children do not achieve a symbiotic attachment, nor do they differentiate self from mother. Psychotic-like behaviors are based on abnormal primary development rather than on a regression from a higher level of functioning. Children with autism lack the intuitive skills to engage in and sustain meaningful social contact, particularly in new situations, and they have a marked inability to generalize.

Biological

Neurological evaluation, including family history, electroencephalogram (EEG), magnetic resonance imaging (MRI), karyotyping, and positron emission tomography (PET), reveals strong evidence of a familial pattern of organic neurological impairment and psychiatric illness. Several research studies estimate the coexistence of neuropsychiatric illness in extended family members to be as high as 50% in individuals with ASD.

Research to confirm brain anatomical abnormalities suggests that neurons in the amygdala (the area responsible for processing emotions and behavior) and the hippocampus (involved in learning and memory) are smaller, more densely packed in some areas, and have shorter, less-developed branches than normal. Low blood circulation in some parts of the cerebral cortex during certain intellectual functions and a reduced number of cells relaying inhibitory messages have been demonstrated. It has been hypothesized that these severe developmental disorders of childhood are the result of a disturbance in the central nervous system integration and in the biological process of maturation. Predisposing organic factors include maternal rubella, phenylketonuria, encephalitis, meningitis, hydrocephalus, hypothyroidism, and tuberous sclerosis.

Family Dynamics

This disorder has been viewed in the past as a result of a severe disturbance in parent-child interaction. Lack of bonding and stimulation as well as maternal deprivation have been listed as causative factors. More recently, dysfunctional parenting has been seen less as contributing to the disorder (not accepted) and more as a response to the disturbed behavior.

CLIENT ASSESSMENT DATA BASE

Activity/Rest

Problems in sleeping

Ego Integrity

Detached, separated from work, withdrawn, restive, may be passive

Verbal/nonverbal communication may be incongruent

Demonstrates repetitive stereotypical motor behaviors (hand flicking, head banging, complex whole-body movements)

Elimination

Disturbances in bowel and bladder functioning

Food/Fluid

Disturbed eating patterns

Hygiene

Generally dependent

Eccentric preoccupation with one area of hygiene and neglect of another (e.g., showering repeatedly but never brushing teeth)

Neurosensory

Abnormalities noted in almost every sphere of development

Delayed motor, perceptual, cognitive, and language development

Soft neurological signs are often seen (e.g., slight tremors, slowed responses)

Varied/bizarre responses to the environment, with resistance or extreme behavioral reactions to minor occurrences; ritualistic behaviors; extreme fascination with moving objects; special interests in music (although heightened hearing/inability to filter or dampen sounds may result in intolerance)

Bizarre facial expressions

Alterations in mood—lacking the gradations in range of fear, sadness, joy

Unreasonable insistence on following routines in precise detail; marked distress over changes in trivial aspects of environment

Difficulty communicating verbally, with delays in/no development of speech; may mimic sounds made by others, incorrect use of words, echolalia, inability to understand abstract terms; consistent reversal of pronouns “I” and “you”

May show periods of extreme agitation in which behavior becomes disruptive and unmanageable

Does not initiate social imitative play appropriate for stage of development

Safety

Self-mutilative behaviors (e.g., head banging, hair pulling)

Lack of appropriate fear/ignoring signs of danger (e.g., running into street with heavy traffic); fearing harmless objects such as shrinking from touch, going limp or stiffening when held (autism), putting people off by abrupt/awkward approaches (Asperger's)

Social Interactions

Poor eye contact, impaired responsiveness/communication when interacting with others

Severely disturbed/impaired development in social relationships; may be barely able to distinguish parents from strangers (autism)

Marked impairment in use of nonverbal gestures associated with social interactions
Lack of social or emotional reciprocity, does not express pleasure toward or in response to other people's happiness; indifference or aversion to physical contact

Teaching/Learning

High association with mental retardation; normal or high verbal intelligence (Asperger's)
Onset during infancy or early childhood before age 3 (autism) with telltale symptoms possibly noted during first months; marked regression following at least 2 years of apparently normal development, and before age 10 (disintegrative disorder), predominantly males; diagnosis of Rett's made at about 5 months of age, occurring only in females

DIAGNOSTIC STUDIES

Neurological examination to determine presence and/or extent of organic impairment.

BEAM/PET Scans: May reveal abnormalities in cerebellum (regulates motion and some aspects of memory) and the limbic region (controls much of emotional life).

EEG: May be abnormal, reflecting presence/extent of organic impairment.

Psychological Testing/Intelligence Quotient (IQ): Provides information about cognitive and personality functioning; IQ below 70 may be noted.

Biochemical Studies: Abnormalities not consistently noted.

Laboratory Tests: As indicated by antipsychotic drug therapy.

Auditory Testing: To rule out deafness as a cause of speech problems.

Vision Testing: To differentiate responses to auditory and visual stimuli as abnormal reactions versus distorted perceptions.

Developmental Testing (e.g., Denver Developmental): May reveal delays.

Determine physical causes for disturbances in age-appropriate functions and behaviors (e.g., toileting problems).

NURSING PRIORITIES

1. Facilitate control/decrease of behavioral symptoms.
2. Enhance communication skills and social interaction.
3. Promote family involvement in treatment process and acceptance of child's disability.

DISCHARGE GOALS

1. Current behavior problems or troublesome symptoms for which treatment is being sought are effectively managed.
2. Treatment within the community is maintained; institutional placement is avoided, when possible.
3. Family verbalizes knowledge about resources to meet the need for a long-term structured therapeutic program.
4. Plan is in place to meet needs after discharge.

NURSING DIAGNOSIS

May Be Related to:

SOCIAL INTERACTION, impaired

Disturbance in self-concept

Delayed development of secure attachment and altered behavioral expression indicating the degree of attachment

Inadequate sensory stimulation or abnormal response to sensory input, organic brain dysfunction

Possibly Evidenced by:

Lack of intuitive skills to comprehend and accurately respond to social cues

Lack of responsiveness to others, lack of eye contact or facial responsiveness

Treating persons as objects, lack of awareness of feelings in others or empathy for them

Indifference or aversion to comfort, affection, or physical contact

Failure to develop cooperative social play and peer friendships in childhood

Desired Outcomes/Evaluation Criteria—

Increase periods of eye contact.

Client Will:

Tolerate short periods of physical contact with another person.

Initiate interactions between self and others.

ACTIONS/INTERVENTIONS

RATIONALE

Independent

Assign limited number of caregivers to child and monitor interactions.

Consistent approach by familiar persons, and evaluating the appropriate match of providers increases chances for establishing trust.

Convey warmth, acceptance, and availability.

These characteristics encourage nonthreatening interaction.

Have personal items (favorite toy, blanket) available and use in interactions as appropriate.

These items can provide sense of security when child feels distressed.

Reinforce eye contact with something acceptable to the child (e.g., food, object). Eventually replace with social reinforcement.

Establishing eye contact is essential before interventions for other symptoms can succeed.

Gradually increase proximity and planned intrusion into child's isolation (e.g., touch, smiling, hugging, and verbal positive reinforcement).

Client will likely feel threatened by onslaught of unaccustomed stimuli. Caregivers need to initiate interaction as avenue toward social response.

Be available as support during child's attempts to interact with others.

Presence of a trusted person provides a feeling of security.

Give careful directions, maintain reliable, consistent rules of behavior and constant checks on reality of child's thoughts and perceptions

Provides structure to help child maintain control/follow the program. Feedback helps child differentiate between fantasy and reality.

Organize and plan time carefully. Manage tasks so child makes as few mistakes and suffers as few disappointments as possible.

Promotes successful experiences and encourages repetition of desired behaviors.

Provide social coaching of the rules of social behavior, including pictures of facial expressions and videos of social situations.

Collaborative

Work with others who are involved (e.g., teachers) to maintain a structured environment with the emphasis on continual interpretation of social needs and interactions.

Maintain contact with social services caseworker and involve in team conferences.

Didactic instruction supplements the lack of intuitive skills necessary to analyze social situations.

Coordinated, consistent efforts help the child learn new behaviors.

Provides continuity of care when child/family is involved with social services system.

NURSING DIAGNOSIS

May Be Related to:

Possibly Evidenced by:

**Desired Outcomes/Evaluation Criteria—
Client Will:**

COMMUNICATION, impaired, verbal

Inability to trust others

Withdrawal into self

Organic brain dysfunction

Inadequate sensory stimulation; maternal deprivation

Lack of interactive communication mode; does not use gestures or spoken language

Absent or abnormal nonverbal communication; lack of eye contact or facial expression

Peculiar patterns in form, content, or speech production (if speech is present)

Impaired ability to initiate or sustain conversation despite adequate speech

Use sounds, words, or gestures in an interactive way with others.

Communicate needs/desires to significant others/caregivers.

Initiate verbal or nonverbal interaction with others.

ACTIONS/INTERVENTIONS

Independent

Maintain consistency in caregivers assigned to child.

Anticipate and fulfill needs until communication can be established.

RATIONALE

Familiarity helps child to develop trust and helps caregivers to learn ways child attempts to communicate.

Reduces frustration while child is learning communication skills. Some therapists believe this process should be limited to force verbal requests for wants beyond basic needs.

Assess previously used words or sounds. Seek validation and clarification to decode communication attempts.

Use face-to-face (eye-to-eye) approach to convey correct nonverbal expressions by example.

Reinforce eye contact with something acceptable to the child (e.g., food, object).

Repeat and reinforce approximations of sounds or words whenever used by child.

Engage in alternative forms of communication such as picture exchange, sign language, or use of computers for children with minimal language development.

Collaborative

Refer for assessment and testing in cooperation with special education teachers and speech pathologists.

Facilitates recognition of speech efforts. These techniques are useful in determining accuracy of messages received.

Expresses genuine interest in, and respect for, client.

Eye contact is essential to capture child's attention, to successfully initiate conversation.

"Shaping" gives child information about the caregiver's expectations and may encourage attempts to communicate.

Three-fourths of children trained in the picture exchange communication system eventually communicate by speech or by speech with pictures. Signing may produce less anxiety than verbal expression for some children, and the use of computers can be helpful to engaging the child in interaction.

Provides for treatment planning with appropriate specialized interventions/techniques.

NURSING DIAGNOSIS

Risk Factors May Include:

Possibly Evidenced by:

Desired Outcomes/Evaluation Criteria— Client Will:

SELF-MUTILATION, risk for

Organic brain dysfunction

Inability to trust others

Disturbance in self-concept

Inadequate sensory stimulation or abnormal response to sensory input (sensory overload)

History of physical, emotional, or sexual abuse

Response to demands of therapy, realization of severity of condition

History of self-injury/destructive behavior

Indifference to environment or marked distress over changes in environment

[Not applicable; presence of signs and symptoms establishes an *actual* diagnosis]

Recognize angry feelings and underlying anxiety.

Decrease incidence of self-mutilating behaviors by "x" times per day.

Demonstrate alternative behavior (e.g., initiate interaction between self and caregiver) in response to anxiety.

ACTIONS/INTERVENTIONS

RATIONALE

Independent

Note prior history of violent behaviors and relationship to anxiety or stressful events. Identify events or stimuli that precipitate self-mutilating behavior, and intervene before these occur.

Useful in determining patterns and predicting and controlling violent behavior. Self-harm may be prevented if causes can be determined and averted. **Note:** May be first priority if this behavior is a prominent symptom.

Reinforce acceptable behavior; provide other satisfying activities (e.g., rocking, swinging, clapping hands to music).

Diversion or replacement activities may become substitutes for self-harm/destructive behaviors.

Involve in sensory integration therapy.

Flooding the child with sensations (e.g., swinging, rolling around in a foam rubber container) helps to train the child to recognize where each stimulus originates and how to mentally organize the stimulus.

Apply protective devices (e.g., helmet, padded arm covers, bandages over sores or scabs).

Provides protection when potential for self-harm is present. **Note:** The inability to tune out unimportant sounds results in sensory overload. The child may engage in repetitive activities or harmful behaviors to vent the frustration and associated anxiety.

Stay with child during times of increasing anxiety.

Helps maintain feelings of trust and security, reducing frequency/severity of destructive behaviors.

Avoid physical restraint if possible, but hold child as necessary until agitation subsides.

Restriction of movement may increase anxiety. Protection from self-harm is essential for safety. **Note:** Some therapists advocate use of aversive conditioning to eliminate life-threatening behaviors.

Establish individualized exercise program.

Exercise therapy as an adjunct to psychotherapy provides outlets for anxious feelings/frustrations to decrease symptoms and thought disturbances.

Collaborative

Administer antipsychotic medications or lithium, as indicated.

May control symptoms of agitated behaviors. **Note:** Current research suggests that medication may neither extinguish behaviors nor be helpful.

NURSING DIAGNOSIS

May Be Related to:

PERSONAL IDENTITY disturbance

Organic brain dysfunction

Lack of development of trust

May Be Related to (cont.):

Maternal deprivation

Possibly Evidenced by:

Fixation at presymbiotic phase of development

Lack of awareness of the feelings or existence of others

Increased anxiety resulting from physical contact with others

Absent or impaired imitation of others; repeats what others say

Persistent preoccupation with parts of objects; obsessive attachment to objects

Marked distress over changes in environment

Severe panic reactions to everyday events

Autoerotic, ritualistic behaviors; self-touching, rocking, swaying

**Desired Outcomes/Evaluation Criteria—
Client Will:**

Show signs of developing awareness of self as separate from others and environment (e.g., discontinuing echolalia, knows body boundaries).

Tolerate separations and environmental changes without signs/reports of undue anxiety.

Modify eccentric behaviors into strengths.

ACTIONS/INTERVENTIONS

RATIONALE

Independent

Use positive reinforcement to encourage eye contact.

Eye contact focuses child on the recognition of another person.

Assist child in learning to name own body parts. Provide mirrors and pictures for self-identification.

This activity may increase awareness of self as separate from others.

Encourage appropriate exploratory touching of others and touching by caregivers.

If done gradually, child can feel the differences between self and others without excessive anxiety.

Encourage self-care activities that differentiate child from environment (self-feeding, washing, dressing, etc.). Divide activity into individual actions or steps, and reinforce completion of each step.

Activities may help child to identify body boundaries. Reinforcement encourages learning. Behavior-modification techniques provide framework for learning.

Engage in imaginative play behavior. Provide modeling and reinforcement both in the home and therapeutic setting.

Pretend play is a cognitively complex form of play that relates to social understanding and the ability to assume roles later in care.

NURSING DIAGNOSIS**FAMILY COPING, ineffective: compromised/disabling****May Be Related to:**

Family members unable to express feelings related to having a severely disturbed child

Excessive guilt, anger, or blaming among family members regarding child's condition

Ambivalent or dissonant family relationships; disagreements regarding treatment, coping strategies

Prolonged coping with problem exhausts supportive ability of family members

Possibly Evidenced by:

Denial of existence or severity of disturbed behaviors

Preoccupation with personal emotional reaction to situation (anger, guilt)

Persistent lack of acceptance of chronic nature of child's disorder; rationalization that problem is developmental and will eventually be outgrown

Attempts to intervene with child achieving increasingly ineffective results

Withdraws from or becomes overly protective of child

**Desired Outcomes/Evaluation Criteria—
Family Will:**

Verbalize knowledge and appropriate understanding of child's disorder.

Express feelings appropriately with decreased defensive behavior (denial, projection, rationalization).

Demonstrate more consistent, effective methods of coping with child's behavior.

Seek outside therapeutic support as needed.

ACTIONS/INTERVENTIONS**RATIONALE****Independent**

Meet regularly with family members to discuss feelings and attitudes.

Supportive counseling can help family members express feelings, explore own reactions to child's disorder.

Assess underlying circumstances that may be contributing to ineffective family coping (e.g., financial problems, health of other members, needs of other children).

Identification of stressors may help parents sort out feelings related to child and other issues.

Assist family to develop new methods for dealing with the child's behaviors. Reinforce effective parenting methods. (Refer to CP: Parenting.)

Collaborative

Refer to other resources as necessary (e.g., psychotherapy, financial aid, respite care, clergy, support groups [e.g., National Society for Autistic Children]).

Encourage parental involvement in training program to serve as cotherapists as appropriate.

Effective intervention skills can assist family to regain self-esteem and control of their environment.

Developing a support system can sustain family coping skills and integrity; provide role models and hope for the future.

Promotes greater involvement and continuation of therapeutic milieu on a full-time basis. Allows for ongoing monitoring of therapy and child's development.