Biomedical/Education Update:

Autoimmune disease: are family members of autistic kids at risk?

Autoimmune disorders occur when the body mistakes its own cells for intruders, and attacks them. A new study indicates that autoimmune diseases such as lupus, rheumatoid arthritis, and diabetes occur with increased frequency in families with autistic children.

Anne Comi et al. surveyed the families of 61 autistic individuals and the families of 46 non-disabled controls. "The mean frequency of autoimmune disorders (AD) was greater in families with autism," they report, "with 46% having two or more members with AD." In addition, they say that "as the number of family members with AD increased from one to three, we found a 'dose effect' for the risk of autism."

The researchers say 16% of mothers and 21% of first degree relatives of autistic subjects had autoimmune disorders, compared with 2% of mothers and 4% of first degree relatives of control subjects. They conclude, "these increased numbers of ADs [in relatives of individuals with autism] indicate that, in some families with autism, immune dysfunction may play a role in its pathogenesis."

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"Familial clustering of autoimmune diseases in autism," Anne M. Comi, Virginia H. Frye, Joseph N. Peeden, Paul A. Law, and Andrew W. Zimmerman; *Annals of Neurology*, Vol. 42, No. 3, September 1997, p. 524. Address not listed.

Medical check-up: Rx for self-injury?

A new report by J. Bosch and colleagues indicates that many cases of self-injurious behavior (SIB) could be prevented or relieved by good medical care.

Bosch et al. found that of 25 mentally retarded patients with SIB, seven—or 28 percent—"had previously undiagnosed medical conditions that could be expected to cause pain or discomfort." In six of the seven patients, treatment of the medical conditions resulted in a reduction of self-injury.

"In patients with SIB, impaired communication skills, and complex medical histories," the researchers conclude, "medical conditions that may be associated with pain or discomfort must be a consideration in determining the etiology of the SIB."

In a related report, Mark O'Reilly performed a functional analysis of the self-injury of a 26-month-old developmentally delayed girl, and found that "self-injury occurred only during periods of otitis media [ear infection]." The girl's self-injury escalated when loud noise was introduced, and O'Reilly concludes that the behavior "may have served a sensory escape function." (Like many autistic children, the girl—who had Williams syndrome—was hypersensitive to noise.)

O'Reilly notes that previous reports have linked aberrant behavior such as self-injury to a range of biological conditions, including allergies and sleep deprivation.

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"Role of medical conditions in the exacerbation of self-injurious behavior: an exploratory study," J. Bosch, C. Van Dyke, S.M. Smith, and S. Poulton; *Mental Retardation*, Vol. 35, No. 2, 1997, pp. 124-130. Address: J. Bosch, University Hospital School, Univ. of Iowa, Iowa City, IA 52242.

—and—

"Functional analysis of episodic self-injury correlated with recurrent otitis media," Mark F. O'Reilly; *Journal of Applied Behavior Analysis*, Vol. 30, 1997, pp. 165-167. Address: Mark F. O'Reilly, Intellectual Disability Research and Training Unit, Dept. of Psychology, University College Dublin, Belfield, Dublin 4, Ireland.

Iranian data: sensory integration helpful

New research from Iran suggests that sensory integration therapy can be highly beneficial for autistic children.

In a non-controlled study, Hojjat Allah Haghgoo treated 30 autistic subjects, ranging in age from 3 to 15, using a variety of sense-stimulating activities including swinging, pressure, heat and cold, lights and colors, and music. Sessions were conducted for one to two hours each day. The children's symptoms were evaluated before the therapy, and again after about six months of treatment.

Haghgoo reports that the children made substantial improvements in social skills, verbal and nonverbal communication, imitation, play skills, and relaxation. In addition, self-injury, aggression, and stereotyped behaviors decreased. "These results," Haghgoo says, "suggest that sensory stimulation and sensory integration therapy play an important role in the treatment of autistic children."

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"Sensory integration and autism," Hojjat Allah Haghgoo, in press. Address: Hojjat Allah Haghgoo, Foundation for Rehabilitation of Disabled Children and Adults, No. 51, First Golestan Pasdaran St., 16669, Tehran, Iran.

Managing anger: staff, patients work together

Using innovative approaches to handling patients' angry outbursts, one New York psychiatric center has decreased the amount of time patients spend in seclusion or restraints by 75%.

Mohawk Valley Psychiatric Center has instituted a multifaceted program geared toward making restraints or medication a last rather than a first resort. Nurse Hank Visalli and colleagues say that two of the most important aspects of the program are:

1. An "anger management assessment" tool, which helps patients identify situations that make them angry or frustrated, and asks them to choose from a checklist of 20 approaches that "help you calm down." In addition, patients are encouraged to tell the staff about any successful coping strategies not included on the list.

2. A "Triangle of Choices," posted in each hospital area and readily available to patients. At the top of this inverted triangle are listed, in large type, "first choices" for anger management. These include exercise, talking or writing about feelings, listening to music, watching TV, talking a walk, counting to 50, relaxation exercises, deep breathing, reading, activities, being alone, or using coping skills taught in training sessions. (Another "first choice" which the nurses say is highly effective is the "comfort wrap," in which patients voluntarily wrap themselves in a cocoon-like blanket.) The remainder of the triangle lists, in descending order, more intrusive interventions such as time-out, medications, seclusion, or restraints.

The facility includes patients as partners in developing anger management plans and monitoring problem behaviors, and provides extensive patient and staff training. In addition, outpatients are asked to participate in training programs. "[These patients'] testimony of being in seclusion, in restraint, and receiving forced medication... [have] motivated staff to employ new methods," Visalli et al. say. Also, the nurses say, outpatients "are an invaluable resource in assisting patients and staff to understand... angry feelings and subsequent behaviors."

Visalli et al. say that in addition to reducing the need for restraints, the hospital's program has caused a marked decrease in the number of staff and patient injuries.

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"Reducing high-risk interventions for managing aggression in psychiatic settings," Hank Visalli, Grace McNasser, Linda Johnstone, and Cynthia A. Lazzaro; *Journal of Nursing Care Quality*, Vol. 11, No. 3, February 1997, pp. 54-61. Address: Hank Visalli, Dept. of Nursing, Mohawk Valley Psychiatric Center, Utica, NY.