Brief Report: Response to National Institutes of Health Report

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The report was a good document but unfortunately it did not adequately address the need to do research on sensory problems in autism. As a person with autism I am very concerned about this. A better understanding of sensory problems will lead to more effective treatments. Research in this area will explain why an intensive behavior program, such as that proposed by Lovaas (1987), will work with one child and fail with another. There is also a need to research the best therapies for sensory dysfunction.

Sensory processing and attention shifting are abnormal in autism (Ciesielski, Courchesne, & Elmasian, 1990; Ornitz 1985; Wainwright-Sharp & Bryson, 1993). Certain types of sensory input such as flickering fluorescent lights will increase repetitive behavior (Colman, Frankel, Ritvo, & Freeman, 1976). Reports from people with autism clearly show that sights, sounds, and sensations that do not bother normal people may be painful and confusing. Sound sensitivity and intense discomfort caused by certain sounds is reported frequently (Bemporad, 1979; Grandin, 1992a, 1995; Grandin & Scariano, 1986; Stehli, 1991; White & White, 1987). Autistics also report that they sometimes have difficulty understanding speech and that hearing may fade in and out (Joliffe, Lakesdown, & Robinson, 1992; Williams, 1994; Sinclair, 1992; White & White, 1987). An auditory training treatment which consists of listening to electronically modified music has reduced sound sensitivity and decreased behavior problems in individuals with autism (Rimland & Edelson, 1994, 1995).

Teachers and parents both maintain that sensory integration therapy is helpful. The method was developed by Ayres (1979) and consists of ap-

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plication of deep pressure and games in which a child is spun or swung. Vestibular stimulation from swinging will often enable autistic children with poor language skills to verbalize and make speech sounds (Ray, King, & Grandin, 1988). Bhatera, Clark, Arnold, Gunsett, and Smeltzer (1981) found that spinning a child in a chair twice a week reduced hyperactivity. Pressure applied to the body has a calming effect on both people and animals (Grandin, 1992b; Grandin, Dodman, & Shuster, 1989; Kumazawa, 1963; Mclzack, Konrad, & Dubrowsky, 1969; Tagaki & Kobagasi, 1956). Grandin and Scariano (1986) and McKean (1994) both report that application of pressure on large areas of their body relieved anxiety and sensory discomfort. Self-stimulatory behaviors can be reduced by wearing a garment that applies pressure (McClure & Holtz, 1991; Zissernnan, 1992). Exercise is also helpful (Elliot, Dobbin, Rose, & Soper, 1994).

Some individuals with autism also have problems with sensory mixing between modalities. They can attend to only one sensory modality at a time (Cesaroni & Garber, 1991; Sinclair, 1992; Williams, 1994). They have difficulty seeing and hearing at the same time. Sensory mixing and overload of an immature sensory processing system may explain why intensive behavioral programs work for one child and fail in another. Williams (personal communication) told me that forcing eye contact caused her brain to shut down.

Anecdotal reports indicate that sensory methods of treatment are effective. Pressure, swinging on a swing, or auditory training may improve sensory processing so that more accurate information can get through to the child's brain. Sensory treatments are not substitutes for other educational programs. They should be used in conjunction with other programs to improve effectiveness. Research is needed to develop the most effective methods for diagnosing and treating sensory processing dysfunction.

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