THE ISSUE

Sensory Integration: Fact or Fad

Sensory integration more and more is becoming the panacea for many occupational therapists who treat a variety of disabilities and dysfunctions. The popularity of this treatment method is growing rapidly and was emphasized by Hightower-Vandamm in 1980. She noted that, in the early '70s, 90 percent of her students wanted to work in physical dysfunction and that presently 90 percent wish to work in sensory integration (1). Efforts have been made to relate sensory integration treatment to mentally retarded adults, blind adults, emotionally disturbed adolescents, and low-achieving college students. This increased interest has produced a plethora of articles on sensory integration in the literature. The December 1981 archival issue of AJOT indicates that, during 1981, 15 articles were published in the Journal on sensory integration. The topic with the second largest number of articles, 9, was physical dysfunction/disabilities. In late 1980, an “Index of Sensory Integration Literature for Occupational Therapy and Related Professions” was compiled by Glover and Weed of the University of Alabama (2), containing 812 references, coded and cross-referenced under 32 subject headings; all related to sensory integration.

The thrust of the following comments is selective and is not directed to sensory dysfunction in children nor to therapists using sensory integration treatment techniques with children. Hightower-Vandamm has already done a comprehensive review delineating some areas of concern while commending the promising and positive aspects. In addition, she commented on meetings between members and officers of those bodies concerned with various aspects of sensory integration: clinicians, the Sensory Integration Specialty Section, Centre for the Study of Sensory Integration Dysfunction, and The American Occupational Therapy Association (AOTA). Basically, the need is to question the widespread use of sensory integration techniques with adults—primarily the chronic schizophrenic population. Why sensory integration when there are other clinical procedures that could do with some careful scrutiny? Because of the overwhelming interest and preoccupation with the area by students and therapists alike; because it is an area where there seems to be little control and even fewer hard data to substantiate the treatment methods being practiced by therapists in both the United States and Canada; because it is taking on “fad” characteristics, everyone is using it to treat everything! Some of the issues requiring attention are as follows.

Cost Effectiveness
Cost effectiveness is becoming an even more crucial issue as the poor economic situation persists. Having observed several movies, videotapes, and treatment programs employing sensory integrative techniques with schizophrenic patients, it is obvious that therapist involvement in terms of treatment hours is of necessity very high. This is because the kinds of techniques and activities inherent in sensory integrative treatment require a great deal of stimulation, modeling, repetition, support, and encouragement on the part of the therapist. Therapist time is costly and this cost must be measured against the effectiveness of the treatment. If, following any type of intensive therapy, it could be shown that the participating patients were able to be transferred from costly hospital beds to less costly boarding homes or to other community facilities, then perhaps the treatment could be considered cost effective.

Unfortunately, what has been reported in the literature are results such as: patients smile more, look brighter, stand up straighter, interact more. All such outcomes might be considered valid in terms of improving the quality of life, but are they valid in terms of the required therapist/patient ratios?

Now one may reasonably argue that, in general, many therapists see patients daily on a one-to-one basis for $\frac{1}{2}$- to 1-hour treatment sessions. But how many therapists regularly see patients in the population labeled chronic schizophrenic on this type of intensive treatment regime? The supposition is that it is relatively few. If a small number of these patients are singled out for sensory integration treatment sessions, it is very difficult, without scrupulous control methods, to determine the benefits of this particular treatment modality. One of the essential ingredients of the control situation is to maintain an equal therapist/subject ratio.

This caution must be exercised where there is a possibility of the results being caused by other factors, the Hawthorne Effect, for example. One might speculate that long-term patients who sub-
denly receive concentrated attention, such as daily 2-hour treatment sessions, would show some changes regardless of the type of treatment. There is a need for vigorous evaluation of outcomes and a need to interpret results with caution and reservation.

To restate, one must be careful in interpreting reports that indicate positive outcomes are the direct result of sensory integrative treatment. It is difficult for one to conclude any definitive relationship when there are no controls, and subjects are exposed to other treatment modalities concurrently, such as medication and other therapies.

Assessment
There are no commercially available standardized tests to assess for sensory integration problems in adult populations that compare to the Ayres Southern California Sensory Integration Tests (SCSIT) (3) for children, hence, researchers have employed a variety of assessment tools and techniques. Among these have been the adaptation of the SCSIT for use with adults. Recently Petit and Utley have addressed this issue by developing the Warren Adult Sensory Integration Test (WASIT) (4). However, for the most part, subjective observations have been used as the key evaluations.

Since the Draw-a-Person test has been employed as an assessment tool in several studies reported in the literature, it will serve for discussion purposes here. Usually these drawings are evaluated according to the Goodenough-Harris (5) scoring guide or by persons external to the study with no knowledge of subject or order of drawings. Since the Goodenough-Harris scoring key deals only with individuals to the mental age of 14 years, 6 months, one must immediately question its use with adults. Also, if a person is disinclined to draw, he or she may quickly draw a stick figure that results in a low score and a corresponding low mental age. On the other hand, another person may labor over a very detailed but quite bizarre drawing and receive a higher rating, and be assessed as having a "better" body image. In addition, it is important in interpreting such test results to know whether the tester was the same person who conducted or was involved in the treatment program. If so, then there is a strong possibility that the subject feels more comfortable and has more trust in the tester by post-test time and is therefore perhaps willing to share more of himself/herself by drawing a more complete figure.

Specialty Training
Therapists working with children can pursue training in the administration of the Southern California Sensory Integration Tests and upon completing the requirements may receive certification. Most of the tests in the SCSIT are standardized on children 4 to 9 years of age; no comparable training or certification course is available for therapists working with individuals beyond this age. Some therapists attempt to use parts of the SCSIT for testing adult or adolescent populations but this practice can only be viewed as inadequate.

It is clear that advanced training is required for an occupational therapist to use either testing or treatment techniques related to sensory integration effectively. The fact that there is no adult battery does not make using inappropriate tests or testing procedures acceptable; nor does the fact that other professionals may use inappropriate testing methods make it right for us to do so as well.

After having previously noted some pitfalls of using subjective observations as evaluations, it is with tongue in cheek that the writer relates some personal "observations" that give rise to concern. One of these was to see therapists label patients as "tactile defensive" when it turned out the patients were experiencing one or a combination of the following: extreme shyness, difficulties with personal hygiene, peer pressure, or the ability to imitate only. In this last instance a male in a dance group could not follow directions but watched the other patients closely. As soon as the other patients moved together, then he would follow, but this lag made him appear to separate himself and gave rise to the label of being tactile defensive. This is not to say he did not have sensory integration problems, but "tactile defensive" was not necessarily one of them.

Another example was seeing patients labeled as having sensory integration problems when they were unable to follow the therapist's movements immediately and accurately. It would seem that another interpretation of this same situation could be that the new patterns or movements were too complicated to be used for assessing a patient's level of sensory integration.

It has been an accepted tenet in our profession that, in order to use the treatment techniques of people like Rood, Brunnstrom, or Bobath, therapists need specialty training beyond that offered in these methods at the undergraduate level. Surely sensory integration methods fall into the same category of requiring advanced training.

Nomenclature
More and more occupational therapists are using what they refer to as "sensory integration treatment techniques." These encompass a vast range of activities—some old
and some new—but all require definition in terms of what activities can be specifically called sensory integration treatment techniques.

In the literature, the following activities have been designated as sensory integration treatment techniques: tossing, throwing, kicking, catching balls; jumping rope and skipping; walking on table, bench, balance beam; spinning; using bean bags, balloons, parachutes, mats, rocker boards, flags, textured clothes; engaging in music and free movement.

In their book *Sensory Integration*, Ross and Burdick (6) suggest activities to enhance or promote bodily response, perceptual integration, and cognitive stimulation. Detailed activities in these categories include most of those already mentioned but also encompass many traditional activities such as reality orientation, games, task and awareness groups, discussions, and arts and crafts. Even if the treatment works, what it is called, in this author's opinion, does matter.

For years therapists have been engaging patients in many of the activities just listed and have referred to the treatment sessions as “occupational therapy.” Albeit differentiation has been used, therapists have held “awareness groups,” done “realty orientation,” conducted “relaxation sessions,” used “exercise groups,” to name a few. These labels, however, are relatively specific, with the content quite obvious. Depending on which article one reads, most of these activities have recently fallen under the new label of “sensory integration.” For example, King notes in her Illinois study (7) that some participants called their programs “sensory integration programs,” whereas others called their programs “exercise programs,” where both were using virtually the same activities. The point to be made is whether or not sensory integration is becoming a catch-all term, in effect, the newest bandwagon onto which all forms of treatment and activities are being attached. The rapid increase in popularity among occupational therapists of using sensory integration techniques and the great demand by occupational therapy students for information in the area raises several points. One is the question of identity. For years we, as occupational therapists, have been grappling with the issue of who we are and how to explain that definitively to others. Are we now going to muddy the waters even more? Is it possible that, in the future, some of us will become known solely as “sensory integration therapists” rather than as occupational therapists? Will this be the birth of yet another professional group competing for recognition?

**Future Considerations**

Most authors who write about the use of sensory integration techniques with adults point out that there is much to be done in terms of research in this area. Since these techniques have become of particular interest to occupational therapists in the past decade, let us become cognizant of the pitfalls.

Treatment using sensory integration techniques should be considered an advanced or specialty skill. To use these techniques effectively requires a good knowledge of neuroanatomy and sensory integration theory, neither of which can be adequately covered at the undergraduate level. In spite of their clinical experience, practicing therapists do need advanced courses specific to sensory integration theory and practice before being considered competent in the area.

Sensory integration treatment methods do work well with selected clients. Therapists need to become aware of new test batteries and assessment tools that are available in the sensory integration area, seek training in their administration, and be selective in their use.

**Sensory integration approaches are a part—but only a part—of treatment modalities in occupational therapy. To know the difference between “fact” and “fad” will allow intelligent use of new approaches—whatever they may be.**

**Acknowledgment**

The author wishes to acknowledge the discussions and time spent with Lorna Jean King, at the Centre for Neurodevelopmental Studies, Phoenix, Arizona, that inspired the writing of this editorial.

**REFERENCES**

2. Glover SW, Weed WE: Index of Sensory Integration Literature for Occupational Therapy and Related Professions, Phoenix, AZ: Center for Neurodevelopmental Studies, 1980