A Program for Parents of Children with Sensory Integrative Dysfunction

(family education, pediatrics, acceptance)

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The pilot parent program described in this article is based on literature that suggested greater parental acceptance of a child would help the child make gains in self-esteem. Six parents of children with sensory integrative dysfunction were seen individually for 6 weeks in order to enhance the parents' understanding of their children's sensory integrative problems and to discuss ways to help build their child's self-esteem. Using the Porter Parental Acceptance Scale as a pre- and post-program measure, the results were not significant; however, the parents' subjective evaluations indicated that the program helped them to increase their understanding of their children's problems and improved their ability to relate constructively to their children.

One of the goals of occupational therapists who work with children with sensory integrative dysfunction is to improve their brain functioning and thereby build more effective work, play, and self-care skills. The time the child spends away from occupational therapy is crucial for good nervous system organization; therefore, parents have a major role in helping to ensure that their child's daily life is rewarding (1).

A child with sensory integrative dysfunction has special needs. The child's occupational therapist needs to work with the parents to help them understand the child's needs, how to make the child's environment more positive, and how to build the child's self-esteem. Ayres, an occupational therapist, recently devoted her book Sensory Integration and the Child (1) to the parents of children with sensory integrative problems. Ayres explained how parents could recognize and understand their child's problems, explained the role of the occupational therapist with the child, and encouraged parent readers about specific things to do to help the child.

Coopersmith's classic studies on the antecedents of self-esteem emphasize the role of the parent with a child. He views self-esteem as the extent to which individuals believe themselves to be capable, successful, worthy, and significant (2). Self-esteem can be fostered by: "total or nearly total acceptance of the children by their parents, clearly defined and enforced limits and the respect and latitude for individual action that exists within the defined limits." (2, p 236) Other ways parents can build the child's self-esteem are by valuing the child's uniqueness, respecting the child's feelings and being trusting and non-judgmental (3).

According to Ayres, faulty sensory processing can affect self-image negatively (1). For a child with a neurological disorder, three factors contribute to a negative self-image:

...the way in which the nervous system is functioning, the feelings of frustration and inadequacy that arise when the child cannot do things well and other people's negative reactions to what the child does. (1, p 161)

Ayres recommends that parents not only need to understand and give the child support, but also need to involve the child in sensory integrative therapy for sensory stimulation and adaptive responses in order to build self-esteem (1). In therapy, multisensory input, particularly from the vestibular system along with the tactile and proprioceptive sensory systems, is provided in a climate of play. The therapy provides sensations that tend to organize the nervous system and enables the child to interact more effectively with the environment (4). Research by Ayres during the past 20 years indicates that sensory integrative therapy improves brain dysfunction of certain types of learning-disabled children (5). Recent studies show the influence of vestibular stimulation on improving motor skills of normal infants (6) and of developmentally delayed young children.

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A study on the effects of sensory integration treatment with retarded children (8) points to the role of sensory input and integration in motor development.

The author designed a pilot program to enhance parents' understanding of their child's sensory integrative dysfunction and to enhance their ability to relate to their child. The program was conceived, in part, by reading Fraiberg's study with blind infants who had had delays in adaptive functioning. Fraiberg's role was to help the mothers find an adaptive substitute, such as auditory or tactile input as opposed to vision, to help them interact with their babies and encourage healthy functioning of the infants (9). Parents of a child with sensory integrative problems may be able to use an adaptive process to relate more effectively to the child. Involvement in the program may permit parents to show greater acceptance of the child that, in turn, should contribute to gains in the child's self-esteem.

The Program
The parent program consisted of six 50-minute weekly sessions conducted individually with each of six parents while the child received sensory integrative treatment in occupational therapy at Olive View Medical Center, Los Angeles, California. All children had been referred for evaluation and treatment of learning disorders from the pediatric clinics.

Participants. Selection of program participants was determined by their child's regular attendance in therapy. All participants were married mothers, four were full-time homemakers, and two worked part-time in addition to being homemakers.

The six children were five boys and one girl who ranged in age from 5 to 10 years. Two of the children's problems were primarily sensory integrative, two children were developmentally delayed with sensory integrative problems, and two children demonstrated emotional and sensory integrative problems. Only the sensory integrative problems were addressed in the parent program, whereas in treatment the total child is usually considered.

Session Format. The format of the sessions is outlined below:

**Session 1:** Gave an overview of the parent program and administered the Porter Parental Acceptance Scale (10). Discussed the process of sensory integration.

**Session 2:** Discussed questions and feedback from the previous session. Discussed the child's sensory integrative dysfunction. As a visual learning aid, used the chart "The Senses, Integration of Their Inputs and Their End Products," from the book *Sensory Integration and the Child*, which describes how information from the sensory systems comes together throughout development in order for a child to master developmental tasks (1). Discussed the parent's role in building the child's self-esteem.

**Sessions 3 and 4:** Discussed questions and feedback from the previous sessions. Discussed parent/child interaction of the past week as it related to the child's sensory integrative dysfunction. Discussed ways the parent could help to build the child's self-esteem.

**Session 5:** Discussed questions and feedback from the previous sessions. Discussed parent/child interaction of the past week as it related to the child's sensory integrative dysfunction. Discussed ways the parent could help the child to learn to play in order to experience success.

Gave a handout on "Helping Your Child Learn to Play," in which concepts came from the chapter, "What Parents Can Do," from *Sensory Integration and the Child*. The handout focuses on the value of play for the child, the importance of self-directed play, the need to support and enjoy the child's efforts at play, and to provide safe play areas (1).

**Session 6:** Requested the parents' subjective evaluation of the program. Discussed questions and feedback from the previous session. Discussed the parent/child interaction of the past week as it related to the child's sensory integrative dysfunction. Reviewed significant learning, understanding, and useful child management suggestions gained from the program.

**Evaluations.** Objective and subjective evaluations were used to assess the effectiveness of the parent program. The Porter Parental Acceptance Scale, a 40-item self-inventory questionnaire, was used at the initiation of the program and again 3 months later. Parents rated themselves from 1 to 5 according to the action they took with various behaviors of their child and the feelings they had in relationship to their child (10). Porter defines parental acceptance as:
... feelings and behavior on the part of the parents which are characterized by unconditional love for the child, a recognition of the child as a person with feelings who has a right and a need to express those feelings, a value for the unique make up of the child and a recognition of the child's need to differentiate and separate from his parents in order that he may become an autonomous individual. (10, p 177)

With 5 representing high acceptance, and 1 representing low acceptance, the possible scores ranged from 40 to 200. The higher the total score, the more accepting the parent of the child. Subjective evaluations occurred in the final session in the responses of the parents when the therapist asked them how they felt about the program.

Results
Six mothers attended all six sessions, and one father, along with the mother of the child, attended the final session.

A comparison of pre- and post-test (Porter Parental Acceptance Scale) scores (Table 1) indicated no overall significant change in the parent's acceptance of the child. Using Porter's classification of low, middle, and high parental acceptance, results from pre-test showed five parents in the middle category and one parent in the low category. Upon retesting, each parent's scores remained in the same category; however, slight increases and decreases occurred in the total scores (Table 1).

Subjective evaluation of the program showed that four parents viewed the sessions as a way to gather guidelines for everyday coping with their children, and two parents stated they were more aware of their children's needs. Three mothers realized that their husbands were viewing the child's behavior differently and were relating more positively to the child since the mothers had explained the sensory integration process to them.

A review of the weekly sessions underlines the process of learning and understanding. During the first session, parents were actively involved in learning. One parent surmised that her child's "perceptions were off" and another viewed sensory integrative problems as "a loose connection." Two parents wondered why their children were not able to use their intellect optimally. One parent explained how difficult it was for her to accept her developmentally delayed child. The occupational therapist supported the parents for the positive environment they had already provided for the children.

In the second session the mothers focused on behaviors that suggested sensory integrative problems, such as the child's difficulty in studying independently, tying shoes, and remembering to do more than one chore. Poor printing, letter reversals, and difficulty in speech and language were identified as problems in school. The parents also identified gains from treatment: the child was less frustrated, less fidgety; coloring improved; manipulated toys better; were more coordinated and automatic at tasks, and improved in speech and academic work. The mothers were concerned that the husbands and siblings did not understand the sensory integrative problems of the children.

The therapist meanwhile related the role of sensory integrative dysfunction (such as difficulty in screening out stimuli, dyspraxia, poor kinesthesia, tactile or vestibular processing) to the problems identified by the parents. Management ideas, such as having a quiet, specific study time and place and repetition of chores, were suggested. The parents were supported for involving the children in treatment, and were encouraged to explain sensory integrative dysfunction to their spouses, and to explain the special needs of the children to siblings.

In the third and fourth sessions, four parents were concerned that their children were not like their peers, who did not have sensory integrative problems. The parent of a tactile-defensive child mentioned how siblings repeatedly touched, upset, and excited the child. The parent was encouraged to tell the siblings how uncomfortable touching is for the child and to foresee and monitor these situations. All six mothers related that their children became upset easily, especially during changes in routine.

The focus of the therapist was to help the parents build the child's self-esteem. Emphasis was placed on regarding the child as a unique individual.

Table 1: Comparison of Pre- and 3-Month Post-Test Scores (Porter Parental Acceptance Scale)

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-</th>
<th>Post-</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>159</td>
<td>152</td>
<td>-7</td>
</tr>
<tr>
<td>Middle</td>
<td>154</td>
<td>150</td>
<td>-4</td>
</tr>
<tr>
<td>Low</td>
<td>132</td>
<td>134</td>
<td>+2</td>
</tr>
</tbody>
</table>

*Given 2 months after start of program because of restraints of study.
person and repeatedly accenting their positive aspects, the need to 
forewarn children of upcoming changes in daily routine, and to 
give more structure to activities. Also, the use of a quiet place to help 
calm the nervous system when the child needed to gain composure was 
reinforced, as well as the need for setting appropriate limits and follow-
ning through consistently after setting these limits.

In the fifth session, parents identified play activities that their chil-
dren had mastered. Several acknowledged that bruises and falls were 
common during play. The therapist encouraged varied play activities 
and emphasized that the parents acknowledge the child’s process of 
play, instead of the finished product. Safe play areas, giving emo-
tional support when the child falls, and then encouraging the child to 
return to play were recommended.

The various aspects of the program discussed in the previous ses-
sions were reviewed in the final session.

Discussion

The assessment used in this pilot study was inappropriate for evaluat-
ing the effectiveness of the program. When the pre- and post-test results 
were compared, it was found that the Porter Parental Acceptance 
Scale did not address issues similar to those of the program. The assess-
ment tool focused on feelings and actions of the parent in the areas of 
discipline, love, and guidance (10). The parent program focused on pa-
rental acceptance through understanding of the child’s sensory integra-
tive problems and making use of suggestions made to help build the 
child’s self-esteem.

The pilot study served as a means of finding errors in the research de-
sign, evaluating the instruments used, and developing methods for 
evaluating change. For example, one might try to monitor change 
more closely by a weekly listing of the suggestions made in a session, 
checking whether they were followed through by the parent and 
were found useful by the parent. Since the ultimate goal of the pro-
gram was to increase the child’s self-esteem via parental acceptance, an 
appropriate dependent measure would be to give a pre-and post-test 
of the child’s self-esteem.

Another outcome of the program concerned the therapist. Her sen-
tivity and awareness of the children increased as did her respect for the 
parents who had responsibilities such as being the child’s advocate in 
school, and balancing the need for being supportive and concerned 
about the child without being over-protective.

Although occupational therapists traditionally use activities as a meth-
od of reaching therapeutic goals, an adjunct to treating children with 
sensory integrative problems may be to help parents understand the 
sensory integrative process and to know how to make the child’s daily 
environment more positive.

Summary

This pilot study explored the usefulness of the occupational thera-
pist in working with the parents of children who have sensory integra-
tive problems. The parent educational program focused on increas-
ing the parents’ understanding of sensory integration and how it 
related to their children as a means of supporting their children’s de-
velopment. The potential support that can be provided to caretakers 
through educational programs similar to the one described here is a 
worthwhile pursuit of therapists in pediatric settings.

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REFERENCES

1. Ayres AJ: Sensory Integration and the 
Child, Los Angeles: Western Psycholog-
ical Services, 1979
2. Coopersmith S: The Antecedents of 
Self-Esteem, San Francisco and Lon-
don: WH Freeman and Co., 1967
3. Briggs DC: Your Child’s Self-Esteem, 
Garden City: Doubleday and Co., Inc., 
1970
4. Ayres AJ: Sensory Integration and 
Learning Disorders, Los Angeles: West-
ern Psychological Services, 1972
5. Ayres AJ: The Development of Sen-
sory Integrative Theory and Practice, 
Dubuque: Kendall/Hunt Publishing Co., 
1974
6. Clark DL, Kreutzberg JR, Cvee FKW: 
Vestibular stimulation influence on 
motor development in infants. Science 
196: 1225–1229, 1977
7. Kantner RM, Clark DL, Allen LC, Chase 
MF: Effects of vestibular stimulation on 
nystagmus response and motor perfor-
ance in the developmentally delayed infant. Phys Ther 56: 414–421, 
1976
8. Montgomery P, Richter E: Effect of 
sensory integrative therapy on the neu-
romotor development of retarded chil-
dren. Phys Ther 57: 798–806, 1977
9. Freiberg S: Insights From the Blind:
Developmental Studies of Blind Chil-
Scale, Provo: Brigham Young Univer-
sity, 1980
acceptance of children. J Home Econ 
46: 176–182, 1954