

## A Social Skills Training Program for Preschool Children with Attention-Deficit / Hyperactivity Disorder

Chia-Chen Chang, MS; Kuo-Su Tsou<sup>1</sup>, MD; Winston W. Shen, MD;  
Ching-Ching Wong<sup>1</sup>, MD; Chia-Chen Chao<sup>2</sup>, PhD

Many children with Attention-deficit/hyperactivity disorder (ADHD) have difficulties in regulating their emotions and maintaining good peer relations. It is important for children with ADHD to receive interventions as early as possible so that their social and emotional development can be achieved. Some social skills training programs for school-ages children with ADHD in Taiwan have shown positive results. However, such programs have not been applied to preschool children with ADHD yet and its applicability needs to be explored. In this report, we describe the clinical experience of conducting social skills training with 8 boys with ADHD (aged 4 to 6 years) and their parents. Eight weekly training sessions were conducted. Each session included a joint parent-child social skills training group (1 hour) and a parent group (40 minutes). After the training, most parents (75%) reported improvements in their children's behaviors. Clinical implications and limitations of this study are discussed. (*Chang Gung Med J* 2004;27:918-23)

**Key words:** attention-deficit/hyperactivity disorder, preschool children, social skills training.

Attention-deficit/hyperactivity disorder (ADHD) is a developmental mental disorder with symptoms of inattention, hyperactivity, and impulsivity.<sup>(1)</sup> Compared to their normal peers, children with ADHD often fail to inhibit their emotional reactions, tend to display their feelings more publicly, and are perceived by others as being childish, emotional, easily frustrated, and hot-tempered.<sup>(2)</sup> It has been reported that more than 50% of children with ADHD have significantly more problems in peer relationships.<sup>(3)</sup> For example, in playgroups, children with ADHD showed 10 times more negative verbalizations and three times more aggressive behaviors than their peers.<sup>(3)</sup> In addition, they were less likely to respond to questions from their peers in addition to having fewer social skills to maintain friendships and promote conflict resolutions.<sup>(4-6)</sup>

Other than difficulty in peer relations, studies of

parent-children interaction of children with ADHD have also revealed that these children tend to have more defiance and noncompliance at home.<sup>(7)</sup> On the other hand, parents of children with ADHD (usually mothers) have often been described as being negative, directive, and less rewarding toward their children's behaviors.<sup>(7-9)</sup> In general, the parent-child interactions are noted to be stressful, especially for the parents of preschool children with ADHD.

It has been suggested that without appropriate interventions, children with ADHD may develop defiant behaviors and/or conduct problems when growing up. It is important for them to receive early intervention in order to alleviate their problems and to promote their social and emotional development. Social skills training programs for school-aged children with ADHD in Taiwan have shown some encouraging results in advancing the social skills of

---

From the Department of Psychiatry, Taipei Medical University-Wan Fang Hospital; <sup>1</sup>Taipei Child Development Assessment Center, Women's and Children's Hospital; <sup>2</sup>Chang Gung University, Taoyuan.

Received: Sep. 15, 2003; Accepted: Feb. 10, 2004

Address for reprints: Prof. Chia-Chen Chao, Chang Gung University, 259, Wen-Hwa 1st Rd., Gueishan Shiang, Taoyuan, Taiwan 333, R.O.C. Tel.: 886-3-211-8343; Fax: 886-3-328-9270; E-mail: ccchao@mail.cgu.edu.tw

the children.<sup>(10,11)</sup> Based on a cognitive-behavioral intervention model, these programs were designed for children of 8 to 12 years old and may not be applicable to preschool children with ADHD.<sup>(12)</sup> Therefore in this report, we intend to describe a social skills training program designed for preschool children with ADHD and present some preliminary results of its application in Taiwan. It is hoped that mental health professionals who work with children with ADHD will find information in this study useful.

## CASE REPORTS

### Subjects

From May through December 2001, 14 boys and 1 girl received social skills training at a local clinic for developmentally delayed children in northern Taiwan. The ages of these children ranged from 4 to 8 years (mean= 6; SD= 0.8). Three (20%) children dropped out of the training due to scheduling difficulty and another 2 (13%) dropped out prematurely for unknown reasons. The remaining 10 boys completed all of the training sessions. Two of these 10 boys were excluded from this report because 1 family failed to return the consent form and 1 child had comorbid mental retardation and fragile X syndrome. Therefore, the data of 8 boys between 4 to 6 years of age (mean= 5.9, SD= 0.7) with the diagnoses by 2 child psychiatrists based on DSM IV criteria are presented. Out of the 8 boys, 4 (50%) were diagnosed with the combined type of ADHD, 1 (13%) with the inattentive type, 1 (13%) with the hyperactive-impulsive type, and 2 (25%) with the NOS type. All children were tested using the Stanford-Binet Intelligence Scale (4th edition). Seven children obtained average intelligence scores (mean FSIQ, 93; SD, 10; range, 82-112) and one scored borderline intelligence (FSIQ=75).

The ages of participating parents (8 mothers and 1 father) ranged from 32 to 40 years (mean= 36 years; SD= 3.5). All 8 families were from middle to upper-middle socioeconomic backgrounds and 4 parents (44%) had some college education. Five parents (55%) were housewives while the other 4 were employed.

### Social skills training group

This program was designed mainly based on a

cognitive-behavioral intervention model that teaches children problem-solving skills through self-instruction, generating alternative solutions, and role playing.<sup>(12)</sup> Based on the needs of the participating children, this program specifically focused on the following target symptoms: inattention, hyperactivity, impulsivity, and poor social relations. In order to promote both parenting skills and the social skills of children with ADHD, a unique and practical design was tried in this social skills training program. We used a joint parent-child social skills training group followed by a parent group.

A total of 3 groups were conducted and 2 therapists led each group. The lead therapist was a clinical psychologist (the first author) and the co-therapist was either a special educator or a social worker. For each group, 8 weekly training sessions were conducted. Each session included a joint parent-child social skills training group (1 hour) and a parent group (40 minutes) (Table 1).

In the joint parent-child group, the children with ADHD learned various kinds of social skills while their parents were participating, assisting, and observing their learning. The skills learned in the group included paying attention, listening, observing, expressing and regulating emotions, complimenting, cooperating, inviting, and asking for help. In consideration of the relatively limited cognitive capacities of preschool children, cognitive-behavioral techniques were tailored to fit the developmental levels and needs of the participating children. All the cognitive components were taught through interactive play activities.

A token economy system was used to reinforce appropriate behaviors and reduce inappropriate behaviors of participating children. Children were encouraged to monitor their own behaviors in the group and to compare the relative frequency of their own appropriate and/or inappropriate behaviors. If a child displayed relatively more frequent appropriate behaviors than inappropriate behaviors, he would receive rewards.

To foster compliance with homework assignments and punctuality, rules were reviewed and printed homework charts distributed at every group meeting. Children were rewarded bonus points if they completed and brought back the homework charts to the leaders and if they arrived on time.

In the parent group, parents shared and dis-

**Table 1.** Description of the Social Skills Training Program

Procedure	Estimated Time (minutes)	Content
<b>Joint Parent-Child Group</b>		
Check in	3	Review group rules and contingencies
Review homework assignment	5	Discuss problems encountered when practicing acquired skills
Teach social skills	40	Learn and practice social skills in play activities
Review performance	5	Count earned points and give rewards
Summary and new homework assignment	5	Discuss and distribute new homework assignment
Check out	2	Close the session
<b>Parent Group</b>		
Check in	5	Review homework assignment
Feedback about training	15	Discuss observations of their children's behaviors and training
Discuss parenting skills	15	Learn and discuss parenting skills
Check out	5	Close the session

cussed their observations of their children's behaviors during the social skills training and at home. Parental perceptions of their children's behaviors were explored. Behavior management techniques such as time out, positive attention, ignoring, and relaxation exercises were taught to enhance parental effectiveness in managing their children's behaviors in general as well as promoting their children's specific social skills. Reports from parents were then recorded and used for planning the next training session.

**Parental feedback**

Eight participants completed the whole program. The average rate of attendance in the training was 82% (SD= 0.2). After the training, most parents (75%) reported improvements in their children's behaviors. Parents described feeling less frustrated and more satisfied regarding their children's behaviors at home. Specifically, after the training 3 children showed improvement in their emotional expression/regulation; 2 became more confident and assertive in social interactions; 2 displayed fewer impulsive behaviors (e.g., hitting, butting into conversations); 1 improved in concentration at school; and 1 played better with his sibling.

In addition, 8 of the 9 parents (88.9%) responded positively to the design of a joint parent-child group. They reported that this training format had three advantages. First, parents were able to gain better understanding of their children's behaviors after observing their children's behaviors in a group set-

ting. Second, the experience of participating in and observing the social skills training made it more effective for these parents to help their children practice learned skills at home. Third, there were many opportunities for the parents to observe how the therapists managed the emotional and behavioral problems of their children in the group; therefore, parents with their newly acquired skills became more effective in managing their children's behaviors at home.

Only 2 parents reported little behavioral change in their children, who had some pre-existing disadvantages (i.e. borderline intellectual functioning and mildly abnormal EEG). Among them, 1 parent attributed the lack of improvement in her child's behaviors to insufficient length of training and requested to continue participating in such a program in the future.

**DISCUSSION**

In this study, we describe a social skills training program designed for preschool children with ADHD using cognitive and behavioral techniques. The preliminary results of this study suggest positive effects of the social skills training program on the behavior of preschool children with ADHD. This program, instead of training children with ADHD alone, uses a joint parent-child group format so that parents could more fully participate in the training process. It seems that this unique design has empowered the parents and, hopefully, will enhance the maintenance and generalization of acquired skills at

home for these children.

The results, however, should be interpreted with caution given the limitations inherent in such a study. For example, one should not ignore the possibility of developmental changes over time when evaluating the improvement in these children's behaviors given that there was no control group. Nevertheless, this issue might not be so critical here because of the short-term nature of the training program (i.e., 2 months). There is no apparent reason to predict that significant developmental changes in this preschool group would occur within such a short period of time without obvious interventions, especially when of all the subjects were still within the same developmental stage. Even if any developmental changes had occurred, it should be negligible. This point is supported by the fact that most of the developmental measures are designed to assess developmental changes over a period of at least 6 months.

Of course, there are other important issues that have not been addressed in this study. For example, it is unclear which group (parent-child group vs. parent group) or what components in each group contributed more to the improvement in these children's behaviors. Evidence has been shown supporting the effectiveness of both social skills training for ADHD children and parent training for their parents.<sup>(10-18)</sup> Therefore, it is important to examine the differential effects of the joint parent-child group and parent group as well as related components.

In the future in order to better evaluate the efficacy of such a social skills training program and examine the aforementioned issues, it is recommended that case-control studies with more rigorous designs, quantitative outcome measures, and a larger sample size be included. In this way, we can more fully evaluate and better understand all the specific factors involved.

### Acknowledgements

This study was supported by grants from the National Science Council, Taiwan, Republic of China (NSC87-2413-H-182-001, NSC88-2413-H-182-001, NSC89-2413-H-182-001). The authors would like to thank Ya-Ling Ko and Tzu-Hui Tsao for their assistance in conducting the group sessions; as well as Frank Sharp for his editing. Deepest gratitude goes to all the children and their parents who

have shared their experiences with us and made this work possible.

### REFERENCES

1. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed-Text Revision. Washington, DC: American Psychiatric Association, 2000:85-93.
2. Barkley RA, Murphy KR. Attention-Deficit Hyperactivity Disorder: A Clinical Workbook. 2nd ed. New York: Guilford, 1998:1-5.
3. Pelham WE, Bender ME. Peer relationships in hyperactive children: Description and treatment. In: Gadow K, Bialer I, eds. *Advances in Learning and Behavioral Disabilities*. Greenwich: JAI, 1982;1:365-436.
4. Cunningham CE, Siegel LS. Peer interactions of normal and attention-deficit disordered boys during free-play, cooperative task, and simulated classroom situations. *J Abnorm Child Psychol* 1987;15:247-68.
5. Landau S, Milich R. Social communication patterns of attention deficit-disordered boys. *J Abnorm Child Psychol* 1988;16:69-81.
6. Grenell MM, Glass CR, Katz KS. Hyperactive children and peer interaction: Knowledge and performance of social skills. *J Abnorm Child Psychol* 1987;15:1-13.
7. Danforth JS, Barkley RA, Stokes TF. Observations of parent-child interactions with hyperactive children: Research and clinical implications. *Clin Psychol Rev* 1991;11:703-27.
8. Mash EJ, Johnston C. A comparison of mother-child interactions of younger and older hyperactive and normal children. *Child Dev* 1982;53:1371-81.
9. Mash EJ, Johnston C. Determinants of parenting stress: Illustrations from families of hyperactive children and families of physically abused children. *J Clin Child Psychol* 1990;19:313-28.
10. Chao CC, Wu YY, Chang HL. *Social Skills Training and Parent Management Training for Children with Attention-Deficit/Hyperactivity Disorder*. Taipei: National Science Council, 2000. (in Chinese).
11. Tseng CC, Wu YY, Chiu CN, Liu CY, Soong WT. Cognitive-behavioral group intervention for children with attention deficit hyperactivity disorder. *Formosa J Ment Health* 1997;10:83-101. (in Chinese).
12. Braswell L, Bloomquist ML. *Cognitive-Behavioral Therapy with ADHD Children: Child, Family and School Interventions*. New York: Guilford, 1991.
13. Anastopoulos AD, Shelton TL, DuPaul GJ, Guevremont DC. Parent training for attention-deficit hyperactivity disorder: Its impact on parent functioning. *J Abnorm Child Psychol* 1993;21:581-96.
14. Basu S, Deb A. Parent training in children with attention deficit hyperactivity disorder: An integrated approach for greater effectiveness. *Indian J Clin Psychol* 1996;23:184-

- 191.
15. Erhardt D, Baker BL. The effects of behavioral parent training of families with young hyperactive children. *J Behav Ther Exp Psychiatry* 1990;21:121-32.
  16. Huang HL, Chao CC, Tu CC, Yang PC. Behavioral parent training for Taiwanese parents of children with attention-deficit/hyperactivity disorder. *Psychiatry Clin Neurosci* 2003;57:275-81.
  17. Pisterman S, Firestone P, McGrath P, Goodman JT, Webster I, Mallory R, Goffin B. The role of parent training in treatment of preschoolers with ADHD. *Am J Orthopsychiatry* 1992;62:397-408.
  18. Stein DB. A medication free parent management program for children diagnosed as ADHD. *Ethical Hum Sci Services* 1999;1:61-79.

## 學齡前注意力缺陷過動症兒童的社交技巧訓練團體

張嘉真 鄒國蘇<sup>1</sup> 沈武典 翁菁菁<sup>1</sup> 趙家琛<sup>2</sup>

注意力缺陷過動症之病童易有情緒調節及人際互動的困難。早期介入可促進病童社會情緒之發展，故有其重要性。目前台灣已有研究初步指出社交技巧訓練可改善學齡過動兒的人際適應。但這些治療方案在學齡前過動兒身上之適用性仍有待探討。此篇報告呈現對八名學齡前過動兒（4至6歲）和家長進行社交技巧訓練的臨床經驗。社交技巧訓練團體共進行八次，每週一次。每次包含一小時的親子團體與四十分鐘的家長團體。在團體結束後，大部分的家長（75%）認為孩子的行為有進步。文末並對研究的意涵與限制提出討論。（長庚醫誌 2004;27:918-23）

**關鍵字：**注意力缺陷過動症，學齡前兒童，社交技巧訓練。