



## **I Can Problem Solve (ICPS) Research Summary**

Initial research, funded by the National Institute for Mental Health in Washington, DC, was conducted with low-income urban African American youngsters. Subsequent research studies and service evaluations have been conducted nationally and internationally in diverse ethnic and income groups. A sample of research is reported here.

**For more information, contact:**

**Myrna B. Shure, PhD**  
Drexel University, MS 626  
245 North 15th Street  
Philadelphia, PA 19102

Phone: 215-762-7205  
Fax: 215-762-8625  
Email: [mshure@drexel.edu](mailto:mshure@drexel.edu)



**RESEARCH PRESS**  
PUBLISHERS

2612 North Mattis Avenue | Champaign, Illinois 61822  
(800) 519-2707 | [www.researchpress.com](http://www.researchpress.com)

## **I Can Problem Solve (ICPS) Research Summary: Preschool**

1. Shure and Spivack (1982) examined the impact of ICPS training in four-year-old inner-city African American children:
  - Compared with nontrained controls, a significantly greater number of ICPS-trained children improved in interpersonal cognitive problem solving (ICPS) skills, especially the ability to think of different *alternative solutions* to interpersonal problems.
  - ICPS-trained children decreased more than comparable controls in such observed classroom behaviors as aggression (physical and verbal), inability to cope with frustration, and social withdrawal.
  - Behavior gains and improved ICPS scores occurred in the same children, suggesting that the behavior gains were associated with gains in the trained ICPS skills.
  - Neither ICPS nor behavior gains could be explained by initial IQ or IQ change.
2. Feis and Simons (1985) studied rural preschoolers:
  - Replicated findings of improved ICPS scores and decreases in problem behaviors, particularly anxious/fearful, hyperactive/distractible, and total negative behaviors.
  - Found a link between gains in ICPS skills and behavioral improvement, replicating the original 1982 study and reinforcing that behavior gains were a function of gains in the trained ICPS skills.
  - Found that ICPS-trained children received significantly fewer referrals to a mental health consultant than did nontrained controls, indicating that ICPS training had impact on reducing negative behaviors that would require outside mental health consultation.

### **References**

- Shure, M. B., & Spivack, G. (1982). Interpersonal problem solving in young children: A cognitive approach to prevention. *American Journal of Community Psychology*, *10*, 341–356.
- Feis, C. L., & Simons, C. (1985). Training preschool children in interpersonal cognitive problem solving skills: A replication. *Prevention in Human Services*, 59–70.

## I Can Problem Solve (ICPS) Research Summary: Kindergarten/Primary Grades

1. Shure and Spivack (1982) examined low-income urban African American children who were divided into four groups: (a) ICPS-trained in preschool, not retrained in kindergarten, (b) ICPS-trained in kindergarten only, (c) ICPS trained for two years (preschool and kindergarten), and (d) never-trained controls. Results reported:

- ICPS impact on behavior lasted at least one full year.
- Training was as effective in kindergarten as in preschool.
- For this age and income group, one year of ICPS training had the same immediate behavioral impact as two years.

Well-adjusted children trained in preschool were less likely than comparable controls to begin showing such behaviors as physical and verbal aggression, inability to cope with frustration, tendency to “fly off the handle” when things don’t go their way, and social withdrawal over the two-year period, highlighting implications of the ICPS approach for primary prevention. In addition, trained preschoolers were more likely to begin kindergarten from a better behavioral vantage point:

- Regardless of initial IQ or IQ change, children who most improved in alternative solution *and consequential thinking skills* were the same children who most improved in behavior, suggesting that it was the trained ICPS skills that guided behavior gains.
- Never-trained controls remained behind all trained groups at the end of the preschool year, six months later, and one year later (at the end of kindergarten).

2. Shure (1993) examined those trained in kindergarten or in kindergarten and first grade over a five-year period. The youngsters were divided into four groups: (a) trained in kindergarten and in Grade 1 by teachers; (b) trained by teacher, kindergarten only; (c) trained by teacher, kindergarten, and mother in Grade 1; and (d) never-trained controls. All youngsters were followed through Grade 4:

- Immediate impact of training on ICPS skills and impulsive and inhibited behaviors, positive peer relations and concern for others in distress, and reading and math standardized achievement test scores was greater for all trained groups, as compared with controls.
- At the end of Grade 4, those trained by their teachers in both kindergarten and first grade emerged as the best adjusted group overall, with all other trained groups superior to those never trained. Those trained by their mothers who most improved had mothers who best used the problem-solving approach in handling real-life problems.

3. DeFranco-Nierenberg and Givner (1998) found that ICPS training can be effective in enhancing ICPS skills and reducing impulsive and inhibited behaviors in seriously emotionally disturbed children from ages five through eight.

4. Kumpfer, Alvarado, Tait, and Turner (2002) reported impact of ICPS training in rural first graders:

- ICPS-trained children improved more than controls in self-regulation (examining measures of impulsivity, hyperactivity, and aggressive/disruptive behaviors).

- ICPS-trained children improved school bonding more than controls (including perceptions of positive school climate and feelings of connectedness to school and to teachers and peers).
5. Boyle and Hassett-Walker (2008) observed overt and relational aggression in kindergarten and first grade in a diverse ethnic urban population of kindergarten and first graders trained in ICPS. They found that:
- Compared to nontrained controls, both one and two years of ICPS training had significant impact on overt and relational aggression (e.g., keeping a child from a play group), as well as on such prosocial behaviors as sharing, taking turns, and being helpful to a peer).
  - Over the two-year period, the most impact occurred for relational aggression and prosocial behaviors.

## References

- Shure, M. B., & Spivack, G. (1982). Interpersonal problem solving in young children: A cognitive approach to prevention. *American Journal of Community Psychology, 10*, 341–356.
- Shure, M. B. (1993). *Interpersonal problem solving and prevention: A comprehensive report of research and training. A five-year longitudinal study, Kindergarten through Grade 4* (#MH-40801). Washington, DC: National Institute of Mental Health (available from Myrna Shure at mshure@drexel.edu).
- DeFranco-Nierenberg, K., & Givner, A. (August, 1998). *Effects of an interpersonal cognitive problem-solving curriculum with seriously emotionally disturbed children, Grades K–2*. Paper presented at the meeting of the American Psychological Association, San Francisco (available from Myrna Shure at mshure@drexel.edu).
- Kumpfer, K. L., Alvarado, R., Tait, C., & Turner, C. (2002). Effectiveness of school-based family and children's skills training for substance abuse prevention among 6–8-year-old rural children. *Psychology of Addictive Behaviors, 16*, S65–S71.
- Boyle, D., & Hassett-Walker, C. (2008). Reducing overt and relational aggression among young children: The results from a two-year outcome evaluation. *Journal of School Violence, 7*, 27–42.

# I Can Problem Solve (ICPS) Research Summary: Intermediate Elementary Grades

1. In addition to the ICPS skills of alternative solution and consequential thinking identified in four- to seven-year-olds, Shure (1980) identified a new skill, means-ends thinking, in ten-year-olds. Means-ends thinking is the ability to plan, step-by-step, means to reach a stated interpersonal goal, recognition of potential obstacles that might interfere with that goal, and recognition that problem solving takes time.

Links between improved ICPS skills of alternative solution, consequential, and means-ends thinking and behaviors after receiving ICPS training were strongest for positive, prosocial behaviors (concern for others, extroversion, being liked by peers) and were also accompanied by decreases in negative impulsive and inhibited behaviors.

2. Shure and Healey (1993) reported impact of ICPS training versus a comparison group receiving training in impersonal cognitive skills (e.g., deductive logic, Piagetian-type tasks, and alternative solutions to impersonal problems such as how water might disappear in a can taken to the desert) in urban African American 10- to 12-year-olds:

ICPS-trained youngsters in Grade 5 were superior to those trained in impersonal cognitive thinking in *alternative solution, consequential, and means-ends thinking skills* measured at the end of Grade 6.

One exposure to ICPS training in Grade 5 significantly increased positive, prosocial behaviors over the behaviors of receiving impersonal cognitive skill training, and a second exposure in Grade 6 significantly decreased negative impulsive and inhibited behaviors in the ICPS-trained group.

While it took longer for negative behaviors to decrease in 10- to 12-year-olds than in younger children, perhaps because the habits are stronger and more difficult to change, ICPS intervention did decrease those behaviors in time.

- The group trained in impersonal cognitive skills group showed *more* impulsive behaviors from Grade 5 to Grade 6, suggesting the importance of ICPS-training as a prevention as well as a treatment program.

## References

- Shure, M. B. (1980). *Interpersonal problem solving in ten-year-olds* (Final report @MH-27741). Washington, DC: National Institute of Mental Health (available from Myrna Shure at mshure@drexel.edu).
- Shure, M. B., & Healey, K. N. (1993, August). *Interpersonal problem solving and prevention in urban school children*. Paper presented at the meeting of the American Psychological Association, Toronto (available from Myrna Shure at mshure@drexel.edu).