

Use of Collaborative Problem Solving to Reduce Seclusion and Restraint in Child and Adolescent Inpatient Units

Ross W. Greene, Ph.D.

J. Stuart Ablon, Ph.D.

Andrés Martin, M.D., M.P.H.

The authors describe “collaborative problem solving,” a cognitive-behavioral approach for working with aggressive children and adolescents. The model conceptualizes aggressive behavior as the byproduct of lagging cognitive skills in the domains of flexibility, frustration tolerance, and problem solving. The goal is to train staff to assess specific cognitive skills that may be contributing to challenging behavior and to teach children new skills through collaborative problem solving. The authors present results from an inpatient unit that dramatically reduced rates of seclusion and restraint. (*Psychiatric Services* 57:610–612, 2006)

There has been growing concern over the use of procedures such as time-outs, quiet rooms, restraint, and seclusion in inpatient units and other restrictive therapeutic settings. The conventional wisdom—that such pro-

cedures are useful for helping patients develop inner controls, mature defenses, coping skills, and interpersonal skills (1–3)—has been increasingly questioned (4,5), and concerns have been raised about the possible adverse consequences of these procedures.

Fatalities are obviously the most extreme adverse outcome of restraint and seclusion, but concerns have also been raised about the possibility that such procedures, whether experienced directly or simply observed, may be countertherapeutic, especially for the many children in restrictive facilities who have histories of trauma (6,7). Furthermore, a growing body of literature suggests that such procedures, which are typically employed to reduce aggressive behavior and maintain safety, actually heighten aggressive behavior (8) and may place staff at greater risk of assault and injury (9).

Given these concerns, current practice parameters recommend that restraint and seclusion procedures be used only to prevent behavior that is dangerous behavior to self or others and to prevent disorganization or serious disruption of the treatment program and only when less restrictive options have failed or are impractical (10). Practice parameters further advise against using seclusion or restraint as punishment, for the convenience of the program, or to compensate for inadequate staffing (10). Even more explicitly, the reduction or outright elimination of seclusion and restraint has become a priority area, with commitment at the federal level (11,12).

As a result of these concerns and practice parameters, many restrictive

therapeutic settings have begun to explore mechanisms for reducing or eliminating the use of restraint and seclusion while simultaneously maintaining staff and patient safety. Other recent trends may actually have served to increase use of restraint and seclusion, including significant reductions in length of hospital stays for children and adolescents, which may limit the degree to which staff are able to form therapeutic relationships with children (10) and may also contribute to high staff turnover, increased job stress, and reduced job satisfaction.

A variety of factors may influence use and rates of restraint and seclusion in a restrictive therapeutic setting, including staff-resident ratios, staff training and experience, the nature of unit expectations and scheduling, and the level and quality of communication among staff. However, the role these factors play is difficult to study empirically for both methodological and ethical reasons. It is beyond the scope of this column to review the literature as it relates to each of these factors. Rather, our focus is on response options available to inpatient staff when children do not meet unit expectations and how these options affect unit stability and safety and heighten or decrease the likelihood of restraint and seclusion. Recent research in this area suggests that the antecedents to most assaultive behavior on child inpatient units are some type of redirection or limit setting by staff (13), suggesting that the manner in which limits are set in an inpatient unit may be of particular importance (10,14).

Dr. Greene and Dr. Ablon are affiliated with the Collaborative Problem Solving Institute of the department of psychiatry at Massachusetts General Hospital and with Harvard Medical School. Dr. Martin is with the children's psychiatric inpatient service at Yale–New Haven Children's Hospital and the Yale Child Study Center. Send correspondence to Dr. Greene at the Collaborative Problem Solving Institute, 313 Washington Street, Suite 402, Newton Corner, Massachusetts 02458 (e-mail, greene@cpsinstitute.org). Bonnie T. Zima, M.D., M.P.H., served as guest editor for this column.

Collaborative problem solving

Although reducing the use of time-out, quiet room time, restraint, and seclusion is an important goal, focusing on that specific goal alone is unlikely to accomplish the mission. Rather, we have found that even with a strong commitment from unit leadership to reduce or eliminate such practices, staff must also be provided with a comprehensive model of care, including a common set of assumptions about the factors underlying children's aggressive or unsafe behavior, an understanding that the manner in which limits are set and expectations pursued by adults may precipitate such behavior, and an emphasis on crisis prevention rather than crisis management. In this view, reduction in the use of physically restrictive procedures is an outgrowth of good care, not necessarily an endpoint in and of itself.

A cognitive-behavioral approach for working with aggressive children and adolescents called "collaborative problem solving" (CPS) (15–18) has shown significant promise in restrictive therapeutic settings. The effectiveness of CPS has been demonstrated in very difficult outpatient populations (17), and the approach has been implemented successfully in numerous child and adolescent inpatient psychiatric units, residential facilities, and juvenile detention settings.

The CPS approach aims to achieve three primary treatment goals. The first goal is to help adults identify the cognitive factors that may contribute to aggressive outbursts of children and adolescents, most notably in the domains of emotion regulation, frustration tolerance, problem solving, and adaptability skills. The second goal is to help adults become cognizant of three common options for handling problems or unmet expectations—imposition of adult will, collaborative problem solving, and removal of the expectation—and the impact of each of these three strategies on adult-child interactions. The third goal is to help adults and children become proficient at solving problems collaboratively so as to resolve potentially conflictual situations in a manner that reduces the likelihood of aggressive outbursts, facili-

tates assessment of the cognitive factors underlying the child's difficulties (in our view, this is among the foremost goals of an inpatient stay), and length of stay permitting, teaches the child specific cognitive skills.

In restrictive therapeutic settings, implementation of the CPS model has also set in motion re-examination of the realistic goals of inpatient stays, with a stronger emphasis (given shorter lengths of stay) on assessment, stabilization, and facilitation of aftercare rather than on trying to "fix everything." Implementation of the model also typically leads to contemplation of unit organization, schedule, structure, and expectations that may actually heighten the likelihood of aggressive outbursts. Adoption of the model results in improvement in mechanisms for staff communication and significant augmentation of the role of direct care staff, from mere "behavior managers" to active participants in each resident's assessment and treatment.

In its focus on facilitating adult-child problem solving (rather than on teaching and motivating children to comply with adult directives), the CPS approach differs from models typically employed in many restrictive facilities. For example, most inpatient units rely heavily on token economy systems or levels of privilege that are designed to track the degree to which patients meet staff expectations for target behaviors and motivate patients to consistently display desired behaviors. By contrast, the CPS model conceptualizes the aggressive behavior of children as the byproduct of lagging cognitive skills in the global domains of flexibility, frustration tolerance, and problem solving. The goal of CPS is, therefore, to comprehensively assess—and ultimately teach—specific cognitive skills that may be contributing to difficulties in these global domains. The assessment component can typically be accomplished during the length of stay under which most inpatient units currently operate. Skills training may also begin during an inpatient stay; however, ongoing postdischarge training is typically necessary. The CPS approach is also thought to differ from other anger management and

problem-solving training programs in its emphasis on assessing and teaching skills primarily in the context of ongoing staff-resident interactions rather than in cognitive skills groups.

As noted above, CPS has been implemented in numerous inpatient units and other settings in the past five years. One unit is an inpatient child psychiatric unit in Massachusetts that had extremely high rates of physical, chemical, and mechanical restraint as well as high rates of seclusion and injuries to staff and patients. Data were collected to document the effects of the CPS model. The unit was a 13-bed, locked unit that admitted children between the ages of three and 14 years; the average length of stay was 14 days. Approximately 80 percent of the children admitted to the unit had significant trauma histories, and 95 percent were admitted for severe out-of-control behavior. For one year on a twice-weekly basis staff members attended supervision sessions on the implementation of CPS. Thirty-four staff members—ten men and 24 women—participated in the training phase. The staff included ten nurses, three social workers, 13 milieu counselors, one activities counselor, one teacher, one psychologist, one child psychiatrist, two student trainees, and two administrative assistants. A total of 100 children—74 males and 26 females (mean age=9.14 years)—were admitted during the staff training period. Severity of disturbance was unchanged during this time as measured by staff ratings of patients' oppositional behavior and aggressiveness.

At the time of the study, in Massachusetts restraint was defined as any physical hold lasting longer than five minutes, involuntary administration of psychotropic medication, or use of a mechanical restraint device, such as leather restraints or a restraint bed. The definition of physical restraint differs from state to state. Some states also consider physical holds lasting less than five minutes to be a form of restraint. Data on restraints lasting less than five minutes were not collected until after the model was implemented, in the follow-up phase. Staff and patient injuries—defined as an injury requiring any form of med-

ical attention—were also tracked.

Results showed a remarkable and statistically significant decrease in rates of restraint and seclusion after implementation (18). During the nine months before the training phase, 281 episodes of restraint were documented. By contrast, only one episode occurred in the 15 months after training. The use of physical holds under five minutes was dramatically reduced over time as well. Results also revealed a significant difference in staff and patient injuries between pretraining and follow-up. In the pretraining phase an average of 10.8 staff and patient injuries occurred each month, and during the follow-up phase, the unit averaged 3.3 injuries a month.

The manner in which the CPS model teaches adults to solve problems collaboratively with patients also has important implications for staff interactions with each other. Thus many of the changes in the structure of the milieu that occurred during implementation of CPS were a byproduct of encouraging unit staff and leadership to discuss mechanisms for altering the culture of the unit. The staff examined many long-standing unit policies and procedures, such as expectations for patient participation in therapy groups, visitation hours and policies, the grouping of patients, and staffing patterns, and worked together to improve compatibility between the unit structure, the primary goals of stabilization and assessment, the staff, and patients.

Because the CPS model involves creating highly individualized action plans for each resident, it was also essential to improve mechanisms for communication. Over time, milieu and supervisory staff began continuously reviewing instances of difficult interactions with patients to identify triggers of aggressive behavior and discuss how these interactions could have been handled in a way that reduced the potential for outbursts while maintaining the safety of staff and residents. Other inpatient units that have implemented the CPS model have instituted formal review processes that are immediately applied whenever use of restraint or seclusion occurs.

Future directions

Substantial reduction in the use of restraint and seclusion procedures and in staff and patient injuries are realistic goals in inpatient psychiatry, as well as in other restrictive therapeutic settings that serve similar populations, such as juvenile detention centers, residential facilities, group homes, and therapeutic day schools. Many settings have reduced their use of such procedures, but there is still much work to be done. Although total elimination of these practices may not be possible in some settings, the dramatic changes associated with implementation of the CPS model are encouraging.

Although the research presented here documenting the effectiveness of CPS in an inpatient unit clearly possesses ecological validity, a variety of limitations in design were imposed by the realities of conducting research under real-life conditions. It was not possible to control for the many changes that occurred on the inpatient unit as a byproduct of CPS training. Thus it is not possible to parse out the factors that principally accounted for the positive changes. It is also important to note that these improvements would not have been possible without a clear commitment from unit leadership. Finally, the selection of an inpatient unit with extremely high rates of restraint and seclusion may affect the generalizability of the findings.

Further study on units with lower pre-existing rates of restraint and seclusion are needed. Data from numerous additional units in which the model has been implemented are being analyzed, and plans are in place to implement and study the model in other settings, including the children's psychiatric inpatient service at Yale–New Haven Children's Hospital.

References

1. Cotton N: *Lessons From the Lion's Den: Therapeutic Management of Children in Psychiatric Hospitals and Treatment Centers*. San Francisco, Jossey-Bass, 1993
2. Gair DS: Limit-setting and seclusion in the psychiatric hospital. *Psychiatric Opinions* 17:15–19, 1980
3. Gair DS: *Guidelines for Children and Adolescents in the Psychiatric Uses of Seclusion and Restraint*. Washington, DC, American

Psychiatric Press, 1984

4. Donovan A, Plant R, Peller A, et al: Two-year trends in the use of seclusion and restraint among psychiatrically hospitalized youths. *Psychiatric Services* 54:987–993, 2003
5. Donovan A, Siegel L, Zera G, et al: Seclusion and restraint reform: an initiative by a child and adolescent psychiatric hospital. *Psychiatric Services* 54:958–959, 2003
6. Finke LM: The use of seclusion is not evidence-based practice. *Journal of Child and Adolescent Psychiatric Nursing* 14:186–190, 2001
7. Mohr WK, Mahon MM, Noone MJ: A restraint on restraints: the need to reconsider the use of restrictive interventions. *Archives of Psychiatric Nursing* 12:95–106, 1998
8. Murray L, Sefchik G: Regulating behavior management practices in residential treatment facilities. *Children and Youth Services Review* 14:519–539, 1992
9. Directors NASMHPD: Reducing the use of seclusion and restraint: findings, strategies, and recommendations. *Emergency Psychiatry* 6:7–13, 2000
10. Masters KJ, Bellonci C, Bernet W, et al: Practice parameter for the prevention and management of aggressive behavior in child and adolescent psychiatric institutions, with special reference to seclusion and restraint. *Journal of the American Academy of Child and Adolescent Psychiatry* 41(2 suppl):4S–25S, 2002
11. Glover RW: Reducing the use of seclusion and restraint: a NASMHPD priority. *Psychiatric Services* 56:1141–1142, 2005
12. Curie CG: SAMHSA's commitment to eliminating the use of seclusion and restraint. *Psychiatric Services* 56:1139–1140, 2005
13. Ryan EP, Hart VS, Messick DL, et al: A prospective study of assault against staff by youths in a state psychiatric hospital. *Psychiatric Services* 55:665–670, 2004
14. Donat DC: Encouraging alternatives to seclusion, restraint, and reliance on PRN drugs in a public psychiatric hospital. *Psychiatric Services* 56:1105–1108, 2005
15. Greene RW, Ablon JS, Goring JC: A transactional model of oppositional behavior: underpinnings of the Collaborative Problem Solving approach. *Journal of Psychosomatic Research* 55:67–75, 2003
16. Greene RW, Ablon JS, Goring JC: Treatment of oppositional defiant disorder in children and adolescents, in *Handbook of Interventions That Work With Children and Adolescents: Prevention and Treatment*. Edited by Barrett P, Ollendick TH. West Sussex, England, Wiley, 2003
17. Greene RW, Ablon JS, Goring JC, et al: Effectiveness of collaborative problem solving in affectively dysregulated children with oppositional-defiant disorder: initial findings. *Journal of Consulting and Clinical Psychology* 72:1157–1164, 2004
18. Greene RW, Ablon JS: *Treating Explosive Kids: The Collaborative Problem Solving approach*. New York, Guilford, 2005