Training Human Service Supervisors in Aspects of PBS:

Evaluation of a Statewide, Performance-Based Program

Abstract: If many people with disabilities are to experience the benefits of positive behavior support (PBS), personnel in human service settings must be well versed in the values and practices of this approach. We describe a curriculum and methodology used to train supervisors in aspects of PBS on a statewide basis. The curriculum incorporated values of person-centered planning, ecologically valid practices, and principles of adult learning in conjunction with competency- and performance-based training. Selected components of the curriculum were initially evaluated experimentally with 12 supervisors. Observations during role-play activities and on-the-job applications indicated that the supervisors acquired the skills addressed in the training. Subsequently, the entire curriculum, which targeted 26 sets of skills related to PBS and involved 4 days of classroom training and 1 day of on-the-job training, was implemented with 386 supervisors across the state of South Carolina. Eighty-five percent of the supervisors successfully completed the training by demonstrating pre-established mastery-level performance for each set of skills. Acceptability measures suggested that all the trainees found the training useful, and 99.6% reported that they would recommend the training to other personnel. Results of the project are discussed in terms of the importance of training supervisors as one component of a systems-change process to enhance the practice of PBS on a large-scale basis.

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An area of growing interest in developmental disabilities is training human service personnel in the values and practices of positive behavior support (PBS). The benefits of PBS for assisting people with disabilities in overcoming challenging behavior and for enhancing life quality overall have been well documented (Sugai et al., 2000; Turnbull, Wilcox, Stowe, Raper, & Hedges, 2000). It has also become recognized, however, that for PBS to assist many people with disabilities, a wide array of personnel require training in this approach (Allen & Tynan, 2000; Rudolph, Lakin, Oslund, & Larson, 1998). Such training is needed for personnel who develop behavior support plans (Baker, 1998; Dunlap et al., 2000) as well as for staff members who are expected to carry out those plans (Hastings & Brown, 2000).

One group of human service personnel particularly warranting attention in terms of PBS training is supervisors of direct-support staff. Supervisors can have a major impact on the quality of work performance among staff members who interact with individuals with disabilities on a day-to-day basis (Sturmey, 1998). If supervisors are to promote the practice of PBS among their staff, which is usually necessary for effective application (Baker, 1998), then they must be well versed in this support paradigm. Supervisory knowledge and skills in PBS are also important because supervisors themselves spend considerable time performing direct-support duties in many community settings. In addition, supervisors who have sufficient training may represent a more stable source of knowledge and skills in PBS relative to direct-service staff because of the high turnover among the latter in community settings (Larson & Lakin, 2000).

Despite the acknowledged importance of frontline supervisors to the quality of supports and services provided for individuals with disabilities, little investigatory or evaluative attention has been conducted concerning programs specifically designed for training supervisors in PBS. Train-
ing in this area warrants special attention in regard to several recommended practices within the general field of organizational behavior management (Sturmey, 1998):

1. Efforts should be directed to ensure that trainees master the knowledge and skills addressed in the training so that it is effective (Reid & Parsons, 1999a).

2. The degree to which training effects observed within the training context carry over to the trainees’ routine workplace must be addressed (Smith, Parker, Taubman, & Lovaas, 1992).

3. Trainee acceptance of the training process and content deserves attention. Training programs that trainees do not like or otherwise find unacceptable often encounter a variety of obstacles that lead to deterioration or discontinuation of the training (Parsons, 1998).

The purpose of this article is to describe a large-scale, statewide program for training supervisors in selected knowledge and skills associated with PBS. In accordance with recommended practice issues as just summarized, specific attention was directed to the efficacy of the training in terms of evaluating trainee mastery of the knowledge and skills addressed by the training, trainee performance in applying targeted skills in their workplace, and trainee acceptance of the training.

Context for Implementing Statewide Training in PBS

The statewide training was a joint venture between the South Carolina Department of Disabilities and Special Needs (SCDDSN) and the Center for Disability Resources, South Carolina’s University Center for Excellence in Developmental Disabilities Education, Research, and Service. The training was one component of a statewide systems change undertaken to address the prevention and treatment of challenging behaviors within the adult developmental disabilities service sector (Rotholz, Lacy, & Ford, 2001). The rationale for initiating the training was twofold. First, a needs assessment conducted across the adult service system in South Carolina, including a series of focus groups involving stakeholders ranging from direct-support staff to regional office personnel, indicated that helping people overcome challenging behaviors was consistently the highest rated need for training, consultation, and assistance (Rotholz & Thompson, 1997). Second, a task force sponsored collaboratively by SCDDSN and the Center for Disability Resources determined that to meet the identified needs related to challenging behaviors, a training curriculum in PBS should be developed and implemented throughout the state. The task force recommended that the curriculum be scientifically sound from a behavior analytic perspective, consistent with the values and practices of person-centered planning, practical in language and style, and based on active learning.

The training that resulted from the needs assessment and task force recommendations represented one of five components of the state’s activities to enhance PBS. Other components included (a) developing criteria and formal training opportunities for professionals who designed behavior support plans, including a revision of qualifications for provision of this service under the Medicaid Home and Community-Based Services “waiver” program to require specific skills in PBS (e.g., conducting functional assessments); (b) provision of technical assistance and case-specific training; (c) development of a process for assessing support quality; and (d) information sharing regarding the entire process with executive personnel involved in the state’s service system. Due to the focus in this article on the supervisory training component of the process, the other components will not be discussed (see Note).

The Training Curriculum

The training curriculum, the Carolina Curriculum on Positive Behavior Support, was developed under the auspices of SCDDSN and subsequently adopted for publication and dissemination by the American Association on Mental Retardation (Reid, Parsons, Rotholz, Braswell, & Morris, in press). The purpose of the curriculum was to present a means of training supervisors in selected knowledge and skill components associated with PBS in conjunction with the state’s existing focus on person-centered supports and services. The curriculum also included staff training and supervisory skills that trainees could use to enhance aspects of PBS practices among their staff. More advanced clinical skills associated with PBS were not intended to be trained with the curriculum, although an understanding of the importance of such skills was addressed. For example, the curriculum was not designed to train supervisors in how to conduct a functional analysis, but it was intended to teach an understanding that challenging behaviors serve a function along, the importance of identifying that function, and the critical role that a functional assessment plays in the support planning process.

The curriculum also was not designed to train individuals in how to write formal behavior support plans per se but rather to train which preventive and behavior change components trainees should expect to be included in such plans. Developing formal behavior support plans through a team- and person-centered approach was addressed through other aspects of the systems change process referred to earlier. Specifically, as part of the changes made in the waiver process that funded behavior support services, including development of behavior support plans (most clinicians responsible for developing behavior support plans for community agencies were paid on a con-
tractual basis through the waiver program), requirements were instituted to ensure that personnel who were approved for payment for developing support plans were skilled in PBS practices. In addition, a series of three university courses in behavior analysis and PBS were developed and offered for clinicians. SCDDSN paid for the courses so they could be offered on a no-cost basis to the clinicians.

CURRICULUM CONTENT

The supervisory edition of the curriculum consists of 26 training modules (see Table 1), with each module targeting a specific knowledge base and/or performance skill. The knowledge areas and performance skills constituting the modules are generally considered to be part of more comprehensive descriptions of recommended practices associated with PBS (see Carr et al., 1999; Dunlap et al., 2000; Horner et al., 1990), including basic principles and procedures of applied behavior analysis. A number of performance skills targeted in the modules were also drawn directly from applied behavioral research that demonstrated the efficacy of these particular skills for changing and/or maintaining behavior among human service personnel or individuals with developmental disabilities. References to the latter sources are provided in Table 1.

As indicated previously, training in PBS was intended to occur in conjunction with SCDDSN’S existing focus on person-centered supports and services. The latter values and practices were reviewed in a number of the curriculum modules. To illustrate, Module 1 covers the way in which the goals of PBS align with person-centered planning. The focus on community-inclusive lifestyles as central to PBS is also emphasized. The importance of person-centered planning and lifestyle changes is also addressed in Module 8, which focuses on choice, and the significance of arranging or reengineering environments to accommodate individual preferences and prevent challenging behaviors from occurring is the target of Module 7. Team-based problem solving with a person-centered focus is emphasized in Modules 14 and 24 (see Table 1 for examples of other modules that directly relate and/or refer to person-centered supports).

TRAINING FORMAT

The training format was designed in accordance with principles of adult learning and recommended practices within

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<td>3</td>
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<td>6</td>
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<td>7</td>
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Note. Supervisory edition of the Carolina Curriculum on Positive Behavior Support. Modules without specific references pertain to well-established principles or procedures in applied behavior analysis (Modules 2, 3, 5, and 20) or procedures originally designed explicitly within the curriculum itself (Modules 14, 24, 25, and 26). *These modules included specific reference to the values and/or practices of person-centered planning. †Punishment was addressed not as a procedure to use but as a principle of behavior to be aware of in terms of its occurrence in everyday life and concerns associated with its use as a behavior change procedure.
engaging in challenging behavior. Regarding performance-based staff training (Everson & Reid, 1999), regarding adult learning principles, the format involves active participation among the supervisory trainees. Trainees take part in numerous activities, including role playing and providing written responses to activity scenarios concerning, for example, designing environments to accommodate individual preferences, incorporating choices into daily routines, and teaching and otherwise promoting skills that allow consumers to fulfill their desires without engaging in challenging behavior. Regarding performance-based staff training, skill training follows a general format: (a) verbally describing a performance skill and a rationale for the importance of the skill in PBS, (b) presenting a written checklist that describes how to perform the skill, (c) demonstrating the skill, (d) observing trainees as they practice performing the skill, (e) providing feedback to trainees on their performance of the skill, and (f) repeating the latter two steps until the trainees demonstrate skill mastery.

In accordance with principles of competency-based training, the curriculum modules include activities through which each trainee must demonstrate performance at a preset mastery level. The activities are represented in skills checks that involve paper-and-pencil activities, role-play demonstrations, and/or on-the-job demonstrations. Paper-and-pencil activities include two multiple-choice quizzes and numerous responses to scenario descriptions (e.g., identifying the apparent functions or motivation of an individual’s challenging behavior, evaluating environments from the perspective of a consumer's preferred and non-preferred activities, making corresponding changes in environments to support individual preferences). Role-play and on-the-job demonstrations of competency involve having the trainees perform activities such as providing a choice to an individual in a manner commensurate with the person’s communicative skills and teaching a functional or replacement skill to an individual using a task analysis, least-to-most assistive prompting, error correction, and contingent praise. Across all modules, 17 require trainees to pass paper-and-pencil exercises, 9 require performance mastery during in-class role-plays, and 6 require on-the-job demonstrations of performance mastery (6 modules require mastery of more than one type of skills check). The role-play and on-the-job skills checks, although used to evaluate trainees’ mastery of performance skills, also constitute part of the training in that the checks are followed by instructor feedback and repeated, if necessary, until mastery is demonstrated. The training and skills checks are provided through two major components: classroom training and on-the-job training.

**Module 8: The Role of Choice**

To be covered on Day 2 of training.

**Objectives**

Upon completion of this module, trainees should be able to:

1. Identify the importance of choice for enjoying life
2. Demonstrate how to provide a choice to individuals who do not talk
3. Identify when to give choices
4. Identify positive outcomes of giving choices

**Method**

In-class activity 5 minutes
Presentation and trainee discussion of reasons for few choice opportunities 5 minutes
Presentation and trainee discussion of types of choice-making skills 5 minutes
Demonstration and practice providing choices 15 minutes
Demonstration and practice identifying when to give choices during the daily routine 15 minutes
Presentation and trainee discussion of the benefits of choice making 10 minutes

**Skills Check**

Mastery demonstration of choice provision during role-play activity 20 minutes
Mastery on-the-job demonstration of choice provision (to be conducted on Day 4 of the training)

**Training Time**

Total training time for module: 1 hour and 15 minutes

**Materials**

Overhead projector
Overhead projector pens
Activity Sheets 8-1, 8-2, 8-3
Hard copies of Overheads 8-1, 8-2, 8-3
Two leisure materials to demonstrate choices
Food item to demonstrate 1-item choice
Skills Check Forms 8-1, 8-2, 8-3

Figure 1. Sample module summary sheet summarizing the training for one curriculum module.

**Classroom Training**

Implementation of each curriculum module during the classroom training follows the same format. A module summary sheet for each module presents an overview of each module’s organization (see example in Figure 1), describing the objectives for the module, a summary of the method for teaching the module, amount of expected time to present each part of the module, how mastery will be demonstrated by trainees in terms of the specific skills that must be mastered, and materials needed to present the modules.

The classroom-training component of the curriculum involves four 7-hour classroom days. Modules 1 through 19 are taught during the first 3 days, followed by 1 day of...
on-the-job training. After the on-the-job training, Day 4 of the classroom training is conducted. The total process thus encompasses 5 training days. Each trainee group is limited to a maximum of 25 supervisors, with two instructors per group. Two instructors are necessary to carry out various demonstrations of target skills according to set scripts and to allow for sufficient observation and individualized feedback for the role-play skills checks to ensure that each trainee demonstrates the preestablished mastery performance. Credentials of the persons selected as potential curriculum instructors were reviewed by SCDDSN and the Center for Disability Resources, with each instructor who was selected having at least 20 years experience in developmental disabilities and training in person-centered planning, PBS, and behavior analysis.

**On-the-Job Training**

Four sets of skills, representing six curriculum modules, are targeted for on-the-job skills checks: providing a choice to an individual with a developmental disability, interacting with a group of people in leisure or social contexts, teaching a skill to an individual, and observing and providing feedback to a staff person regarding some aspect of the latter's work performance. To conduct the on-the-job skills checks, an instructor goes to a staff person's work site, such as a group home, supported living arrangement, or supported work placement.

The on-the-job skills checks are conducted in the same manner as during the classroom-based role plays. By the time an instructor arrives at a trainee's work site, the trainee has already demonstrated mastery of each skill to be assessed during a preceding classroom-based role-play. At the work site, the trainee demonstrates each target skill and the instructor provides feedback. This process involves people with disabilities with whom the trainee typically works for three skills, and a staff member whom the trainee supervises for one skill. The process is continued until the trainee demonstrates each respective skill at mastery level. Between 20 and 45 minutes usually are necessary to conduct all on-the-job skills checks with one trainee. Typically, an 8-hour day is required for each instructor to complete these skills checks, unless the trainees' work sites are spread across a large geographic area. In the latter case, more than two instructors are needed or the skills checks must be scheduled across multiple days.

**Initial Experimental Evaluation of Selected Modules**

During the development and initial implementation phase of the curriculum, an experimental evaluation was conducted with two curriculum modules. The purpose was to evaluate experimentally the degree to which supervisory trainees would improve their performance in the skill areas addressed by these modules. The intent was to conduct a more rigorous evaluation of the effects of the training process employed in the curriculum than was feasible when evaluating effects of the statewide training.

The first skill selected for experimental evaluation was conducting an evaluative observation of staff performance in a manner that is generally well accepted by human service staff (cf. Reid & Parsons, 1995b). The rationale for conducting such observations as described in the curriculum was that a component of PBS is providing an enjoyable environment for individuals with disabilities, and it is illogical to assume that direct-service staff can help provide an enjoyable environment if they are discontented with their work environment. Hence, we focused on supervisors' working with staff—such as when observing staff activities associated with PBS—in effective and pleasant or acceptable manners. The second skill was using performance-based training procedures to train a PBS-related work skill to a staff person (Sturmey, 1998). These two skills were selected for the following reasons:

1. Each skill represented the focus of a curriculum module (Modules 16 and 19, respectively).
2. Each skill targeted specific performances of trainees that could be observed for proficiency on the job.
3. During the subsequent statewide training with the curriculum, evaluation of trainees' mastery of these particular modules was limited to observations of trainees' performance during classroom-based role plays. (Due to practicality and time constraints, not every module targeting a performance skill included on-the-job skills checks at the trainees' work sites.)

The intent was to evaluate whether (a) the training process to be used during the statewide training resulted in proficient performance of trainees during classroom role-play simulations and (b) trainees would demonstrate proficient implementation of the skills during actual on-the-job performance following classroom training. If the experimental evaluation demonstrated successful training in this manner, the results would offer support for the efficacy of the training process to be used on a statewide basis in addition to the existing body of staff training research upon which the curriculum was based.

**Method**

**SETTING AND PARTICIPANTS**

The setting was a residential agency for persons with developmental disabilities in North Carolina. Participants were two groups of supervisors who worked in the individual residences. Each participant had supervisory authority over direct-support staff. Groups A and B each
consisted of six supervisors (five women, one man per group). These individuals were selected for the evaluation because they were in supervisory positions and were scheduled by the agency to participate in supervisory training. The agency administration agreed to include training in selected supervisory skills related to PBS within the curriculum as part of the overall training.

**BEHAVIOR DEFINITIONS, OBSERVATION PROCEDURES, AND INTEROBSERVER AGREEMENT**

The behavior definitions that constituted the targeted observation and staff-training skills were drawn directly from definitions in the curriculum modules. For conducting an evaluative observation of an area of staff work performance, the trainees were required to perform at least three of the following four steps:

1. greet the staff person in a pleasant manner when entering the person's work area,
2. explain why the observation was being conducted,
3. provide feedback immediately after the observation, and
4. thank staff for participating in the process.

The behavior definitions for performance-based staff training involved (a) verbally describing the skill being taught to the staff member, (b) giving a written description of the skill to the staff member, (c) modeling the skill, (d) observing the staff person practice the skill and providing feedback, and (e) repeating the preceding two steps until the staff person performed the skill proficiently.

Evaluative observations of the trainees' observational and staff-training performances were conducted by the instructors using checklists included in the curriculum modules that coincided with the just-noted behavior definitions. Interobserver agreement checks were conducted on 46% of all observations, including during pretraining and postraining observations for both trainee groups and both sets of skills. Interobserver agreement was determined on an observation-by-observation basis regarding whether observers agreed that the respective trainee met the designated mastery criterion for the target skill. Interobserver agreement averaged 95%.

**EXPERIMENTAL CONDITIONS**

There were three experimental conditions. The first condition involved pretraining probe observations of the trainees' performance of the two target skills during role-play demonstrations in the classroom. For the observation skill, an instructor played the role of a staff person who performed a work duty according to a designated script as detailed in the curriculum. The script involved the trainee observing a staff member (played by an instructor) who was helping an individual with highly significant disabilities (played by another trainee) to eat. The role-playing “staff member” was providing bites of food too quickly and was not attending to the individual's actions of trying to avoid certain foods by turning his or her head away. The trainee was requested to observe the “staff member’s” performance as if observing the activity during the routine job. Following the trainee's observation of the role-playing “staff person,” the trainee was thanked by the instructor, but no feedback was provided.

The pretraining observation probes of trainee implementation of the staff-training skill were conducted in the same manner as just described, except that the instructor who played a staff member followed a different script, again drawn from the curriculum module. Specifically, a scenario was verbally described and presented in writing to the trainee. The scenario involved training a staff member how to carry out a behavior support plan that specified promoting an individual's response to a staff request when the individual began to inappropriately touch another person (which represented an antecedent behavior to aggressive actions by the individual). The support plan specified that the staff person should ask the individual to do (“do” requests) something with the staff member and refrain from telling the individual not to do something (“don't” requests). The plan further specified that the individual often responded to don't requests with aggressive behavior. The scenario described the situation in which the trainee walked through the individual’s home and noticed the “staff member” using repeated don't requests while the individual was touching someone. The supervisory trainee was asked to show how she or he would use performance-based training to train the “staff member” in correctly carrying out the behavior support plan. Subsequently, one instructor role-played the staff member, an instructor's assistant role-played the individual, and the other instructor observed as the trainee carried out the staff-training procedure.

The second experimental condition was training. Two instructors conducted the training with one group of trainees at a time for each of the two target skills, as described in the respective curriculum module. To briefly summarize, training for the observation skill involved the following format. First, the rationale for conducting observations of staff work performance was described. Second, the specific guidelines for conducting an observation were reviewed. Next, two different observation processes were demonstrated. In the initial process, the instructor demonstrated an observation with another instructor who role-played a staff member in which the four target observation skills were not performed (i.e., the instructor entered the simulated staff work area, immediately observed the “staff person,” and then left the area). In the second demonstration, the instructor followed the same process, adding a demonstration of the four target skills involved in con-
ducting an acceptable observation. The four target skills were then verbally described for the trainees. The trainees subsequently practiced observing staff work performance using the script described previously with the pretraining probes. Training for the staff-training skill entailed the same format (i.e., description of rationale and component steps, demonstration, and trainee practice); however, the role-playing script involved the scenario noted earlier with the pretraining probes of trainee staff-training skills.

Due to variations in the supervisory trainees’ work schedules and corresponding availability to participate in a given training session, the number of trainees participating in the training for the two skills varied. For both groups, all six trainees participated in the observation training, and three of the six participated in the training on how to train staff.

The third experimental condition involved posttraining observation probes of the trainees’ performance of the target skills. These observations occurred in the same manner as with the pretraining probe observations except that following each trainee’s demonstration of the respective observation or staff-training skill, an instructor provided feedback to the trainee.

EXPERIMENTAL DESIGN

A repeated-measures, within- and between-groups design (Myers, 1966) was used to evaluate the effects of the training on the trainees’ performance during the classroom role-play demonstrations. A pretraining probe was initially conducted for each target skill for each trainee group. Group A then received training on the observation skill while Group B received training on the staff-training skill. Observation probes were subsequently conducted for each skill with each group. Group A then received training on the staff-training skill while Group B received training on the observation skill. Finally, a posttraining probe was conducted with Group A for training and Group B for observation.

ON-THE-JOB OBSERVATION PROBES

To evaluate whether trainees who demonstrated mastery of the two target supervisory skills during the classroom-based role-play exercises would also demonstrate mastery of the skills during actual work with their staff members, on-the-job probe observations were conducted with a sample of trainees. The probes occurred within 1 month following training while the supervisors worked with their staff members during the latter’s regular job routine. For on-the-job probes of the trainees’ observation skills, an instructor asked a trainee to show how he or she would observe a staff person perform during a leisure activity of the trainee’s choosing. For probes of the trainee’s staff-training skills, a trainee was asked to watch a staff person perform a leisure or skill-teaching activity and then demonstrate how she or he would train the staff person to conduct that activity in a trainee-determined correct manner. For Group A, on-the-job probes of trainees’ implementation of the observation skills occurred with three trainees and implementation of the staff-training skills with two trainees. For Group B, on-the-job probes occurred with one trainee for the former skills and one trainee for the latter skills.

**Results and Discussion**

As indicated in Figure 2, few trainees met the designated mastery criterion on any pretraining probe. For the pretraining probes for the observation skill (two top panels on Figure 2), 17% of Group A and 33% of Group B met mastery criterion. In contrast, on the posttraining probes, 100% of trainees met criterion (each trainee required only one posttraining probe to meet criterion). For the staff-training skill, none of the trainees in Groups A and B met criterion on the pretraining probes, compared to 100% on the posttraining probes (again, each trainee required only one posttraining probe to meet criterion). Regarding the on-the-job observation probes following training (not shown on Figure 2), 100% of trainees met criterion for both the observation and staff-training skills during their first probe.

Results of the experimental evaluation with the two curriculum modules offer support for the effectiveness of the training process used within the curriculum. All the supervisors who participated in the training demonstrated competence during the scripted role-plays, and all the supervisors for whom on-the-job probes were conducted demonstrated competence in the target skills during their work activities. The training format for each module was identical to that subsequently used during the statewide implementation of the curriculum, and the instructors during the experimental evaluation also served as instructors for the statewide training.

Statewide Implementation and Evaluation of the Curriculum

**BACKGROUND AND SETTINGS**

Services for adults with developmental disabilities under the auspices of SCDDSN are organized on a regional basis. Within each region, services are provided locally through the operation of county Boards of Disabilities and Special Needs. There are 37 county boards across the state (some smaller counties combine to form one board). There are also four state-operated regional facilities, which have been undergoing an intensive restructuring and reduction process as part of the statewide initiative on providing more inclusive community living arrangements for people with developmental disabilities. To illustrate, during the decade...
of the 1990s, the population of the state-operated institutions decreased by 48%, compared to a national average decrease of 41% (Lakin, Smith, Prouty, & Polister, 2001). During the last half of the decade, there was a reduction of 39%, which was almost double the national average reduction of 20% during the same time period (Prouty, Lakin, & Anderson, 2000). Information concerning the availability of supervisor training in PBS was disseminated to each county board and each regional facility. Participation in the training was voluntary.

The targeted participants for statewide training were personnel who functioned as supervisors of direct-support staff. Training was initiated with supervisors for two primary reasons (in addition to the general need for supervisory training discussed earlier). First, the intent was to train the supervisors and then subsequently train selected supervisors who successfully completed the training as trainers of direct-service staff in PBS (see General Discussion). Second, it was reasoned that even supervisors who were not formally trained as trainers could still help train some areas of PBS to direct-support personnel on an informal, on-the-job basis. (As indicated in the experimental evaluation [see also Table 1], several modules directly addressed how to conduct performance-based training and related performance-change procedures with staff within the regular job routine.)

**IMPLEMENTATION PROCESS**

Each county board and regional facility was offered the opportunity to enroll 50% of its supervisors in the training during the initial phase. As various county boards and regional facilities expressed interest in having their supervisors participate in the training, a training schedule was established on a per region basis. Thirty-five of the 37 county boards and all four regional facilities chose to have supervisors participate in the training. Supervisors from two private community providers who served SCDDSN consumers also participated. To date, 18 groups of supervisors have been trained across a 22-month period, for a total of 386 supervisors. The vast majority of the supervisors (more than 80%) worked in community sites operated by the county boards. The most common work environment of the supervisors who were providing residential supports and services was group homes. Other residential settings included individual supported living arrangements, small-group supported living sites (e.g., two-person apartments), and larger residential units (representing only approximately 10% of the employment sites of the supervisors). The primary nonresidential work environments of the supervisors were community-based vocational sites. This included supervisors who were involved with supported work crews and enclaves, individual supported work placements, and sheltered workshops. A smaller number of supervisors worked with adult education programs in the community and with home-based education support services. For each group of supervisors, training was conducted using the format described previously of 3 days of classroom training, 1 day of on-the-job training, and 1 final day of classroom training. Typically, there was 1 training day per week for each of 5 consecutive weeks for each group of participants.

**TRAINING RESULTS**

Of the 386 supervisors who began the training, 328 (85%) successfully completed the training by performing all classroom and on-the-job skills checks at mastery crite-
The 328 supervisors who successfully completed the training included 23 supervisors who did not complete skills checks for a respective class (due to either missing the class or not meeting criterion on skills checks during the first class participation). They subsequently attended the same class a second time with another group. All of the latter supervisors successfully completed the skills checks during their second class participation. All 328 supervisors who completed the training successfully completed the on-the-job skills checks within one instructor visit to their work site (although several observation and feedback sessions were often required during the visit for a trainee to demonstrate mastery on a given skill).

In addition to the skills checks used to evaluate trainee mastery of curriculum content, several evaluation forms were completed by each trainee on an anonymous basis. Most relevant for this article in terms of evaluating trainees’ views of the training were two questions. The first question, answered by the trainees immediately following the last class session, solicited their opinions on the usefulness of the entire training on a 7-point Likert scale. As indicated in Figure 3, 95% of trainees reported the training to be extremely or very useful, and no trainee rated the training as nonuseful. The second question asked the trainees if they would recommend the training to their colleagues. Of this group, 99.6% reported they would recommend the training.

Three focus groups were conducted to assess a variety of issues that could affect trainee implementation of skills contained in the curriculum. These groups, each containing 6 to 8 supervisors who had completed the training, were held at least 90 days after completion of the training. The focus groups were conducted by a facilitator with prior training and experience in implementing focus groups according to the methods outlined by Krueger (1994). Two of the three groups were composed of supervisors from local county boards, the third group consisted of supervisors from one of the regional facilities.

In each focus group, the positive view of the training process previously summarized was reaffirmed. A large majority of the participants also indicated that the training resulted in beneficial changes in their use of PBS skills in their jobs. Three areas of change that were reported most frequently by focus group participants across the three groups were more positive interactions with people with disabilities for whom they provided supports and services, provision of more choices to these consumers as part of the daily routine, and improvement in their supervisory interactions with the direct-support staff whom they supervised.

![Figure 3](image-url)
General Discussion

Results of the program evaluation appear to support the efficacy of the Carolina Curriculum on Positive Behavior Support as a means of training human service supervisors in selected knowledge and skills associated with PBS on a large-scale basis. More than 320 supervisors demonstrated preestablished levels of mastery on a variety of paper-and-pencil activities, role-play demonstrations, and most importantly, on-the-job applications during the course of the training. The initial experimental evaluation of two of the curriculum modules also tends to support the effectiveness of the overall training methodology.

As discussed previously, personnel training programs should meet the criteria of effectiveness, generalization of skills acquired during training to routine work sites, and trainee satisfaction with the training process and content. Regarding effectiveness of the current training, the skills checks helped ensure that the trainees actually mastered the training content. The on-the-job training and evaluation helped ensure that the trainees generalized selected skills demonstrated in the classroom to their actual job sites. Finally, results from the acceptability questionnaires suggested that the training was well received by the vast majority of the trainees.

When considering trainee acceptance of the training process, it should be noted that questionnaire measures are somewhat limited in terms of acceptability (Parsons, 1998); however, some additional support for trainee acceptance of the training came from two other sources. First, after designated staff from the county boards completed the training and returned to their usual work situation, a number of boards requested that additional supervisors be allowed to participate in later training groups. It seems unlikely that the boards would have requested this and subsequently sent additional supervisors if their initial group of trainee participants had expressed displeasure with the training upon return to their agencies. Second, independent of the instructors who conducted the training, results of the focus groups involving supervisors who had participated in the training indicated a desire for additional training of other supervisors in their own agencies as well as in other agencies.

As also indicated previously, supervisory training was only one component of the systems change process to enhance the practice of PBS in the adult developmental disabilities service sector in South Carolina (Rotholz et al., 2001). One logical concern of such a systems change process is the degree to which supervisory trainees maintain and continue using the knowledge and skills acquired as a function of training. Although a thorough discussion of follow-up concerns and strategies is beyond the scope of this article, there was one component of the supervisory training that may have enhanced skill maintenance. Specifically, the curriculum was designed with a direct-support staff edition (representing a 16-module, reduced version of the supervisory edition). Upon completion of the training, participating agencies selected certain supervisors to be trained as trainers using the latter curriculum. To date, 48 graduates of the supervisory training (representing 20 county boards and three regional facilities) have participated in a 2-day train-the-trainers program. Forty-one (85%) of these individuals successfully completed the competency-based trainer program. A number of the trained trainers subsequently solicited the assistance of other graduates of the supervisory training to help train direct-support personnel in their respective agencies. These “second-generation trainers” have trained more than 300 direct-support staff at their local county boards. Although the trainer program was designed to further disseminate the values and practices of PBS through training of direct-support personnel, such training can have the effect of maintaining the skills of the trainers as they in turn teach others (Van Den Pol, Reid, & Fugua, 1983).

Although the train-the-trainers process can help maintain to some degree the effects of the training described in this article, it is most likely that additional components will be needed to ensure that the training has a strong impact on the supports and services offered across the state. It should also be noted that the areas targeted by the training represent only a subset of the knowledge and skills necessary to practice PBS in its entirety. Other aspects of PBS, such as goal identification and collaborative teaming, were not specifically trained. Future research is warranted to operationalize and evaluate training in these and other aspects of PBS. Additional research is likewise needed to determine the ultimate impact of supervisory training on the quality of life of people with disabilities. Formal evaluative measures regarding the impact of the supervisory training on outcomes for individuals with disabilities were not included in the current investigation, such that the ultimate impact on their quality of life is not clear at this point. Currently, SCDDSN and the Center for Disability Resources are working on a number of such training and systems change components, although it is premature to determine the effectiveness of these undertakings. Nonetheless, before supervisors and staff can be expected to apply PBS to the lives of people with disabilities, they must acquire basic knowledge and skills. Evaluative results of the program described here appear to offer encouragement in terms of one means of providing such training for selected aspects of PBS.

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**NOTE**

Information about the other components is available from the authors.

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