This paper discusses the preliminary findings of Project DESTINY (Designing Educational Support Teams through Interdisciplinary Networks for Youth with Emotional or Behavioral Disorders), a three-year project designed to evaluate models for school-based service delivery to students with emotional or behavioral disorders (EBD). The sample for the study included 64 regular and special education teachers from two New Hampshire intervention schools. It investigated the effects of two types of staff development activities (didactic presentations and case studies on teachers' perceptions of their competence in the area of EBD), and the effects of increases in teachers' perceptions of their own competence on the academic and social functioning of their students. Results indicate that when combined with traditional in-service presentations, the case study component of the model seemed to enhance outcomes for staff members. Teachers reported that case studies left them with a deeper understanding of the material presented and a more differentiated picture of students. Based on their deeper understanding of the students' needs, teachers appeared better able to use selectively and appropriately the tools that had been presented in didactic seminars. (Contains 15 references.) (CR)
Introduction

Including students with Emotional or Behavioral Disorders (EBD) in general education classrooms, while desirable in many respects, has been controversial among those concerned with education and children's mental health (Fuchs & Fuchs, 1994; MacMillan, Gresham, & Forness, 1996; U.S. Department of Education, 1995). Critics have suggested that this practice may not be in the best interests of the students, their classmates, or the school community as a whole (Kauffman, 1993). A specific concern has been that, in order to effectively educate students with EBD, general educators need to broaden their knowledge in this area (Jones & Jones, 1990; Knitzer, 1982; Knitzer, Steinberg, & Fleisch, 1990).

Enhancing general educators' knowledge in the area of EBD is one of several issues being investigated in Project DESTINY (Designing Educational Support Teams through Interdisciplinary Networks for Youth with Emotional or Behavioral Disorders), a three year research project, funded by the U.S. Office of Special Education and Rehabilitative Services (Barringer & Cheney, 1995; Cheney & Barringer, in press) and designed to evaluate models for school-based service delivery to students with EBD. This summary concerns our preliminary findings regarding: (a) the knowledge and skills of teachers from two of our intervention schools; (b) the effects of two types of staff development activities (i.e., didactic presentations and case studies on teachers' perceptions of their competence in the area of EBD); and (c) the effects of increases in teachers' perceptions of their own competence on the academic and social functioning of their students.
Method

Setting

Data were collected at two New Hampshire middle schools. School A, with an enrollment of 520 students (grades 6-8), is located in a community of 9,500 residents, 98% of whom are Caucasian. School B is located in a community of 75,000, also primarily Caucasian (96%), enrolling 875 students (grades 7-9).

Participants

Participants from School A included 27 general education teachers and 3 special educators, with an average of 17 years of experience. A total of 21 had Masters degrees and 9 had Bachelor's degrees. In school B, there were 30 general and 4 special education teachers, with an average of 15 years of experience. A total of 20 had Masters degrees, and 14 had Bachelors degrees.

Using the Systematic Screening for Behavior Disorders (SSBD; Walker & Severson, 1992), teachers identified students as either typically developing or having EBD. Requests for permission to participate in the project were mailed to parents of the children whose scores were the top three on internalizing and externalizing scales from each class as well as parents of classmates considered typical by their teachers. Students having permission were then assessed using the rating scales. Finally, groups of students were designated based on the results.

Teachers, students, and parents then completed the appropriate Achenbach (1991) behavior checklist and the Social Skills Rating System (SSRS; Gresham and Elliott, 1990). Students also completed the Reynolds Adolescent Depression Scale (RADS; Reynolds, 1989). Students whose T-scores were greater than 60 on any of the Achenbach broad band scales, or above 70 on the RADS, were placed in the group with EBD. A total of 22 students with EBD (14 males, 8 females; age $x = 12.9$) were identified in school A, and 20 students with EBD (12 males, 8 females; age $x = 13.2$) were identified in school B. Twenty-seven students were identified as typical for their age and grade in school A (14 males, 13 females; age $x = 12.6$), and 19 were identified in School B (8 males, 11 females; age $x = 13.3$); all of these students scored within the average range on the screening measures.

Procedure

During the 1994-95 school year, the Project DESTINY Team (i.e., a clinical psychologist, a special educator, and a family social worker) engaged in two types of staff development: (a) the first being a series of eight didactic workshops, on such topics as developing partnerships with families, clinical syndromes, and crisis intervention techniques (Cheney & Barringer, in press); and (b) a series
techniques (Cheney & Barringer, in press); and (b) a series of bi-monthly case studies of students, which included members of the school staff, and, whenever possible, the parents and students themselves.

Both schools participated in the didactic training and were scheduled to complete case studies. However, due to leadership issues and contract negotiations, only School A participated in case studies. The case studies were highly structured meetings intended to develop individualized plans for students with EBD. Information concerning 4 developmental factors (biological, interpersonal, affective, and cognitive) was collected using teacher, student, and parent versions of the same data collection forms (a sample of the student form is presented in Figure 1). Using this information, staff, students, and parents then met to identify those areas of the student's development in which support was needed. Student supports were specified in each relevant developmental area, and dates were set for review in order to assess the effectiveness of these supports. In contrast, teachers in school B met informally with the consultants, raising questions about students of concern. Students and parents did not participate in these meetings.

Measures

In both schools, the measures discussed below were administered at the beginning and end of the school year.

Teacher Knowledge and Skills Survey (TKSS). Based on two recently published lists of competencies for educators of students with EBD (Braaten, 1993; Bullock, Ellis, & Wilson, 1994), a 45 item measure of teachers' perceptions of their knowledge and skills related to EBD was constructed. A factor analysis of these items from 114 teacher surveys identified six factors, which included 36 items that accounted for 74% of the variance. The six factors were used as subscales, all of which had both acceptable internal consistency (five scales exceeded .8 and one scale alpha = .75) and item to total correlations (.4 - .7).

Students' social and emotional functioning were measured using two rating scales: the Teacher Rating Form (Achenbach, 1991), a 113 item scale, that assesses internalizing and externalizing behavior problems, and the Social Skills subscale of the Social Skills Rating System (Gresham & Elliott, 1990), which measures student progress on 30 desirable behaviors. In addition, students' grade point averages were computed for core classes in Math, Language Arts, Social Studies, and English, and attendance was recorded as days absent across a 175 day school year.

Results

Teacher Knowledge and Skills

Pre- and post-test subscale scores for teachers from schools A and B are included in Table 1. A MANOVA indicated
A and B are included in Table 1. A MANOVA indicated significant pre-test differences between the two groups of teachers (Hotellings $T^2 = .77$, df = $6,58$, $p < .01$) on all but one factor (i.e., Classroom Behavioral Assessment). In general, teachers from School A rated themselves as more knowledgeable than those from School B on the pre-test administration of the TKSS. With the exception of the Classroom Instruction subscale of the TKSS, teachers from School B had a mean rating below 3 (moderate level of competence) on a five point scale for all knowledge/skill areas. The mean score for teachers from School A was below 3 on the Theory and Characteristics, Background and Eligibility, and Classroom Behavioral Assessment subscales.

A subsequent MANCOVA with repeated measures, using teachers' pre-test scores as covariates, indicated significantly higher post-test scores (Hotellings $T^2 = .35$, df = $p < .01$) for teachers from school A. Univariate tests showed that these differences were significant ($p < .05$) for all subscales of the TKSS except Classroom Behavioral Assessment.

**Teachers' Ratings of Students**

In order to discern the impact of teacher education on student performance, student measures were examined. A MANOVA with repeated measures, using TRF and SSRS data, also indicated significant pre-test differences between schools on the Social Skills subscale ($F = 16.08$, df = $1,76$, $p < .001$), as well as a significant Student Group x School interaction ($F = 9.82$, df = $1, 76$, $p < .01$). In both schools, typically functioning students scored higher than students with EBD on measures of social skills, but this difference between student groups was significantly greater in School B than in School A. The results of a MANCOVA, covarying pre-test differences between schools, showed only the expected significant post-test difference between students identified as having EBD and those identified as typically functioning.

**Attendance and Grades**

Students' attendance and grades were also examined as indicators of the effect of teacher education on student performance. In School A, the attendance of students with EBD ($M = 172.56$, SD = 5.3) was comparable to the attendance of students in the typical group ($M = 171.73$, SD = 6.9). In contrast, students with EBD from School B attended school fewer days ($M = 164.88$, SD = 13.90) than students in the typical group ($M = 173.70$, SD = 5.6). An ANOVA of the absence data yielded a significant Group x School interaction ($F = 4.57$, df = $1,78$, $p < .05$).

As expected, the grade point averages of students with EBD were generally lower than those of students in the typical group across schools (see Table 2). Mean grade point averages across quarterly marking periods, however, were
averages across quarterly marking periods, however, were stable for both groups of students in school A, but only for the group of typically functioning students in School B. In School B, students with EBD showed both considerable variability in their mean grade point averages across the four marking periods, and a significant decline ($F = 4.37, df = 1, 76$) from the first to the fourth quarter. Using first quarter grades in a subsequent MANCOVA with repeated measures, however, failed to yield significant differences.

**Discussion**

Despite the obvious design limitations, preliminary analyses of these data have been useful in pointing out the nature of differences between the participants, and in shaping our staff development activities accordingly. With regard to the latter, our preliminary findings suggest that not all staff development methods provide the same results. When combined with traditional in-service presentations, the case study component of the model seemed to enhance outcomes for staff members. Thus, our greatest success was in school A, in which the leadership demonstrated a strong commitment to regular meetings involving teams of teachers, students, and parents. These meetings were devoted to sharing information, developing individualized action plans within a structured, developmental framework, and, in so doing, building important relationships among the participants. When compared to students in school B, students with EBD in school A had higher grades, less fluctuation in grades across marking periods, and higher attendance rates.

The case study process was also designed to increase the accuracy of teachers' attributions regarding the causes of behavioral problems. We know that teachers who attribute a student's behavior to factors beyond the student's control (e.g., family relationships, bio-medical issues, financial hardship, etc.), are generally more supportive than those who regard all rule violations as strictly volitional (Brophy, 1985). With respect to this issue, teachers from School A reported that case studies left them with both a deeper understanding of the material presented in didactic workshops and a more differentiated picture of students and their families.

Based on their deeper understanding of the students' and families' unique needs, teachers appeared better able to selectively and appropriately use the tools that had been presented in didactic seminars. Our preliminary findings suggest that the plans developed during case studies had little impact on teachers' evaluations of students' social-emotional functioning, but may have influenced both attendance and grades. During the second year of Project Destiny, we have been collecting data that bear more directly on the relationship between our measure of staff development and measures of students' functioning. In addition, we have added control schools to this year's
design.

References


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