SOCIAL SKILLS OF ADOLESCENTS IN SPECIAL EDUCATION WHO DISPLAY SYMPTOMS OF OPPOSITIONAL DEFIANT DISORDER

AUTHORS

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ABSTRACT

Twenty-seven special education students in self-contained classes whose behavior met DSM-IV (American Psychiatric Association, 1994) diagnostic criteria for an ODD diagnosis were matched according to age, gender, ethnicity, socioeconomic status, math and reading scores, and IQ with 27 special education students in self-contained classes who did not meet ODD diagnostic criteria. Teachers rated students who met DSM-IV criteria for ODD as having fewer social skills, lower academic competence, and more problem behaviors than special education students whose behavior did not meet criteria for an ODD diagnosis. Results suggest that students with ODD symptoms would benefit from social skills instruction.

INTRODUCTION

Education of students with disabilities has progressed from exclusion of some children with handicaps to instruction in special education classes to legislation stipulating the placement of these children in classes with regular education students without handicapping conditions (Jacob & Hartshorne, 2003). The movement toward increased mainstreaming of
special education students has elicited some cautionary reaction. Gresham (1984) protested the arbitrary placement of special education students with their non-disabled peers. He argued that the concept of mainstreaming was based in part upon three assumptions. The first assumption was that physical placement of children needing special education in general education classrooms would result in increased social interaction between general and special education children. The second assumption was that mainstream placement would result in social acceptance of children with disabilities by their non-disabled peers. The third assumption was that mainstreamed children with disabilities would model or imitate the behavior of their non-disabled peers. Gresham (1984) presented evidence from several studies that these assumptions were faulty, and he recommended social skills training prior to mainstreaming special education students because they were found to have social skills deficits compared to general education students.

Meadows, Neel, Scott, and Parker, (1994) concluded that including disabled students with their non-disabled peers poses problems particularly for students whose disabling condition is classified as an emotional disturbance. Research by Gable, Hendrickson, and Rutherford (1991) found that social skills among students with emotional disturbances are not as well developed as those of students with other handicapping conditions such as learning disabilities. These social skills deficiencies may present problems in mainstreaming emotionally disturbed students (Gresham, 1984). Social skill deficits for emotionally disturbed students may be the most critical deterrent to social acceptance (Schloss, Schloss, Wood, & Kiehl, 1986). Studies indicate that many students with behavioral disorders lack appropriate social skills (Gresham, 1984, 1986) and are poorly accepted by their peers (Sabornie, 1985). Others (Gersten, Walker, & Darch, 1988; Treder, Morse, & Ferron, 2000) have found reluctance by teachers to include these students in their classrooms.

Based on such findings, Meadows, Neel, Parker, and Timo (1991) recommended that, prior to placing behaviorally-disordered students in regular education classes, educators need to look closely at students' specific social skills deficits and levels of social competence. If students who have particular types of emotional disorders demonstrate social skills deficits, these deficits should be addressed with social skills training before including these students in classes with non-disabled students. Otherwise, mainstreaming efforts with these students may not succeed.

The Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition (DICA-R) is a widely used categorization system of emotional...
disturbances that may be used to distinguish various groups of students with disabilities (American Psychiatric Association, 1994). Students who meet the DSM-IV inclusion criteria for Oppositional Defiant Disorder (ODD) seem likely to have social skills problems because several of the inclusion criteria for ODD refer to socially undesirable behaviors. For example, adolescents with ODD frequently lose their temper, often argue with adults, actively refuse to comply with adult requests or rules, deliberately annoy people, blame others for their mistakes, and are easily annoyed by others. These symptoms are indicative of social problems and may be associated with more general social skills deficits than suggested by the specific ODD inclusion criteria.

This study compared the social skills of adolescents in self-contained classrooms who met DSM-IV ODD inclusion criteria with a matched comparison group of students with other disabilities who were receiving special education but in self-contained classrooms whose behavior did not qualify them for an ODD diagnosis. The purpose of the study was to more fully understand the extent to which adolescents with ODD have social skills deficits. If students with ODD symptoms have social skills deficits relative to the comparison group, it would be wise to address these social skills deficits before including these students in classes with non-disabled students. Thus, we expected adolescents with ODD symptoms to have significantly lower social skills ratings by teachers on the Social Skills Rating System _ Teacher Form, Secondary Level (SSRS-T) than special education students who did not meet ODD diagnostic criteria (Gresham & Elliott, 1990).

Because of their symptoms, it was hypothesized that adolescents who met criteria for an ODD disorder would score significantly higher on the Problem Behaviors scale of the SSRS-T than control group students. Finally, it was hypothesized that adolescents with an ODD disorder would score significantly lower on the Academic Competence scale of the SSRS-T scale than control students. Research suggests that behaviorally disordered students (which would include students with ODD symptomatology) are distinctly different from other comparison groups, such as low-achieving students with learning disabilities, in terms of social skills deficits (Merrell, Johnson, Merz, & Ring, 1992). Furthermore it has been noted that emotionally disturbed students evidence poorer school adjustment behavior than other disabled students (Merrell et al., 1992). Thus it was expected that the students meeting diagnostic criteria for ODD would score lower than control students without ODD symptoms on the Academic Competence scale.
METHOD

POPULATION

We obtained participants from self-contained special education classrooms in an urban academic high school in New York City. The racial/ethnic composition of the school was 16% White (non Hispanic), 29% Hispanic, 47% African American, and 8% Other (Chinese and Arab). At the time of the study, the special education department of this school served 198 students. Most of the students had been attending self-contained special education classes since early elementary school. They ranged in age from 14.3 to 19.3 years and were in classrooms in grades 9 through 12. They took seven classes daily with different teachers.

Members of the special education department classified the 198 students as follows: Emotionally Disturbed (ED, n = 39); Learning Disabled, students who were classified as learning disabled either according to state guidelines that mandate a discrepancy of 50 percent or greater between potential and actual achievement (New York State Department of Education, 1992) or according to less stringent criteria under section 504 of the Rehabilitation Act of 1973 that does not stipulate specific discrepancy guidelines, (LD, n = 124); Mentally Retarded (MR, n = 26); Speech Impaired (SI, n = 8); and Traumatic Brain Injured (TBI, n = 1). We selected participants from the group of 163 students with ED and LD classifications. We did not include students listed with MR, SI, and TBI classifications in the study, because we believed that their disabilities might confound social skills results. Of the 163 students classified as either ED or LD, 115 (70.6%) were males, and 48 (29.4%) were females.

To control for the possibility that social skills deficits were due to possible mental retardation, students with IQ scores below 70 were not included in this study. Attention Deficit Hyperactivity Disorder (ADHD) and Conduct Disorder (CD) are other externalizing disorders that may be associated with social skills deficits. Thus, we excluded students meeting diagnostic criteria for these two disorders from the potential subject pool. To control for possible effects of gender, ethnicity, IQ, learning disability based on math and reading scores, and socioeconomic status, participants were matched on these variables. Table 1 presents criteria for experimental and control group inclusion. Diagnostic criteria were established using the ODD, ADHD, and CD modules of the Diagnostic Interview for children and Adolescents – Revised (Leacock, & Shanfeld, 1995).

DIAGNOSTIC MEASURES

The Diagnostic Interview for Children and Adolescents-Revised (DICA-R) is a structured diagnostic interview composed of modules that classify
child and adolescent psychiatric disorders according to DSM-IV criteria (Reich, Leacock, & Shanfeld, 1995). Diagnostic criteria for ODD, ADHD, and CD were assessed using the parent version of the Diagnostic Interview for Children and Adolescents-Revised (DICA-R-P) which was modified for use with teachers (Reich et al., 1995). Teachers rather than adolescents were used as informants because adolescents have been found to be less reliable than adult informants when reporting externalized disorders such as ADHD, ODD, and CD (Hart, Lahey, Lodber, & Hanson, 1994). Also, teachers were used as informants because the study was concerned with students who displayed ODD symptoms in school. Kappa values for the DICA-R from data collected on 48 subjects between the ages of 13 and 17 were: 0.56, 0.78, 0.82 for the ADHD, ODD, and CD diagnostic categories, respectively (Reich, 2000).

The Wechsler Intelligence Scale for Children-III (WISC-III) was used to assess the participants’ intelligence levels. The reliability coefficient for the Full Scale IQ was reported as .96 while the stability coefficients ranged between .90 and .95. The manual lists correlations of the WISC-III with the WPPSI-R, WAIS-R, DAS, Stanford-Binet Intelligence Scale-Fourth Edition, K-ABC, and Woodcock Johnson-Revised to document evidence for concurrent validity (Wechsler, 1991).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODD Diagnosis</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>IQ above 70</td>
<td>Yes/Match</td>
<td>Yes/Match</td>
</tr>
<tr>
<td>Self-Contained Special Education</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Reading and Math Scores</td>
<td>Matched</td>
<td>Matched</td>
</tr>
<tr>
<td>ADHD Diagnosis</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>CD Diagnosis</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Gender</td>
<td>Matched</td>
<td>Matched</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Matched</td>
<td>Matched</td>
</tr>
<tr>
<td>Socioeconomic Status</td>
<td>Matched</td>
<td>Matched</td>
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</table>
Woodcock Johnson Psycho Educational Battery-Revised (WJPB-R) was the instrument used to assess participants’ reading and math. The letter-word identification and the passage-comprehension scores were used to calculate the broad reading score. The broad math score was derived from the calculation and applied problems scores. Internal consistency reliability coefficients for the WJPB-R have been reported as ranging between .731 (Writing Fluency) and .968 (Applied Problems) with the majority of scales in the high .80s and low .90s (Woodcock & Mather, 1990).

DEPENDENT MEASURE
Since the present study focused on social skills manifested in school, the dependent variables were assessed using three scales of the secondary level teacher version of the Social Skills Rating System (SSRS): Social Skills (30 items assessing students’ cooperation, assertion, and self-control), Problem Behaviors (18 items), and Academic Competence (9 items). The Social Skills Rating System _ Teacher version (SSRS-T) is a norm-referenced instrument designed for screening and classification of students’ social behavior. The scale was standardized on 299 teachers’ ratings. The authors reported coefficient alpha rates for all forms ranging from .73 for the Problem Behaviors Scale to .95 for the Academic Competence (Gresham & Elliott, 1990).

PARTICIPANT SELECTION AND DESCRIPTIVE INFORMATION
A database list was created of all 198 special education students who were in self-contained classrooms from the computer database program that the special education department used to generate Individualized Education Programs (IEPs) for its students. The list included students’ names, classification labels, IQ scores, and Reading and Math scores as well as the dates that these scores were obtained. We identified students classified as ED and LD for possible inclusion in the study, decreasing the potential subject pool to 163. The next step involved screening for IQ below 70 to eliminate the possibility that social skills deficits were due to low IQ. This reduced the potential subject pool to 132.

After this initial screening of the database, the first author contacted the parents of potential control and experimental participants and asked them to sign consent forms allowing their adolescents to participate in the study. The first author also obtained student assent. Parents completed The Four Factor Index of Social Status (Hollingshead, 1975) that was used to assess socioeconomic status (SES).
Next, the first author approached 12 teachers who taught potential study participants, and all of these teachers signed consent forms. The first author interviewed two teachers for each potential participating student using the ODD, CD, and ADHD modules of the parent version of the DICA-R that was modified for use with teachers. Each teacher must have known the students he or she rated for a minimum of two months.

If students met criteria for CD or ADHD, they were eliminated from the study. Students identified as meeting ODD diagnostic criteria according to both teachers’ DICA-R-P answers were the experimental subjects. Twenty-seven students met criteria for ODD exclusively. Students not meeting criteria for ODD, CD, or ADHD became potential candidates for the control group.

Next, the 27 experimental participants were matched with control group students who met the following criteria: a) same gender, b) same ethnicity, and c) Reading and Math scores within ± .075 grade levels of each other on the WJPB-R (Woodcock & Mathers, 1990). Then experimental and control participants were matched according to IQ scores. Ten IQ points (1 standard deviation) was the maximum discrepancy permitted for each pair. Finally, the groups were matched according to SES scores. A total of 40 male and 14 female students participated in this study, with each group containing 20 males and 7 females. The sample included 10 White, 20 African American, 22 Hispanic, and 2 Arab students with an equal number of students of each ethnic background in control and experimental groups.

Table 2 gives the means and standard deviations for experimental and control participants for each of the match variables (i.e., age, IQ, Reading score, Math score, and SES score). Table 2 also presents the results of t-tests of independent groups comparing experimental and control groups’ scores on the match variables. The p-values associated with the t-tests are all well in excess of $p < .05$, indicating that there are no significant differences between the groups. The effect sizes for these comparisons (ds) are extremely small. Thus, Table 2 confirms that control and experimental groups were composed of participants matched according to SES, IQ, Reading and Math scores, ethnicity, and gender. Experimental participants met criteria for a diagnosis of Oppositional Defiant Disorder; control participants did not meet these criteria. SES scores indicate that participants’ parents were semiskilled or unskilled laborers (Hollingshead, 1975).
PROCEDURE
Following the matching of the 27 experimental participants with their 27 control counterparts, 2 special education teachers were selected randomly from each participant’s program of classes and administered the SSRS-T. These teachers were not the same as the teachers who responded to the DICA-R. Thus, each student’s scores on the SSRS-T scales were the average of two teachers’ ratings. The same two teachers did not rate each student. In total, 11 different teachers rated the students on the SSRS-T. All teachers were unaware of the purpose of the research.

RESULTS
For the total sample, the two teacher ratings correlated .88, .83, and .80 for the SSRS-T Social Skills, Problem Behaviors, and Academic Competence scales respectively, accounting for 77%, 69%, and 64% of the variances, \( p < .001 \) in all cases. This indicates that teachers were in agreement about participants’ social skills.

We calculated three t-tests for independent samples, one for each hypothesis, to examine differences between teachers’ ratings of experimental and control group participants on the SSRS-T scales. Table 3 presents the results of these t-tests, including effect sizes, as well as means and standard deviations for experimental and control participants on the SSRS-T Social Skills, Problem Behaviors, and Academic Competence.
scales. As shown in Table 3, all t-tests were significant at well beyond the customary $p < .05$ level. The results supported all three hypotheses. Experimental participants met criteria for a diagnosis of Oppositional Defiant Disorder (ODD); control participants did not meet these criteria. As the $p$-values indicate, mean differences between experimental and control groups were statistically significant.

Table 3 shows that teachers rated adolescents in self-contained special education classes who met diagnostic criteria for ODD significantly lower on the Social Skills scale than they rated students in self-contained classes who did not meet DSM-IV criteria for an ODD diagnosis. This confirms hypothesis one. The effect size ($d$) associated with this significant difference was .77. Cohen (1992) indicated that effect sizes of .80 or higher are considered large. Thus, this effect size, which approaches large, indicates that the difference between students in these two groups in terms of their social skills would be easily detectable by an observer.

The Problem Behaviors scale row in Table 3 shows that teachers rated students with ODD symptoms as having significantly more problem behaviors than special education students without ODD symptoms. The effect size associated with this significant finding ($d = 2.72$) is very large, indicating there is a large discrepancy in the number of problem behaviors that students in these two groups display. This confirms hypothesis two.
Finally, the last row of Table 3 shows that teachers rated adolescents meeting DSM-IV criteria for ODD significantly lower on the Academic Competence scale than their special education counterparts who did not meet ODD diagnostic criteria. This confirms hypothesis three. The effect size associated with this significant finding (d = .57) is medium. Cohen (1992) indicates that “a medium effect size represents an effect likely to be visible to the naked eye of a careful observer” (p. 156).

**DISCUSSION**

We conducted this study to investigate the possibility that special education students with ODD symptoms who are in self-contained classes have social skills deficits that are more severe than their disabled peers in self-contained special education classes. Results showed that teachers perceived special education students in self-contained classes who met DSM-IV criteria for ODD as having fewer social skills (i.e., cooperation, assertion, and self control), less academic competence, and more problem behaviors than special education students in self-contained classes whose behavior did not meet criteria for an ODD diagnosis. These findings support results of a study by Merrell et al. (1992) who found that behaviorally disordered students show poorer school adjustment than low achieving students with learning disabilities. Academic underachievement has been found to co-occur with a diagnosis of Conduct Disorder (a diagnosis that shares the Disruptive Behavior Disorders category with ODD) in 20-25% of cases (Frick, Lahey, Christ, Loeber, & Green, 1991).

These findings are consistent with research by Merrell et al. (1992) who found that behaviorally disordered students were rated the lowest on empathy, sensitivity, and self-restraint when compared to learning disabled, mentally retarded, low achieving, and general education students. Gresham and Elliott (1990) indicated that the SSRS-T Problem Behavior Scale measures externalizing problems. Oppositional Defiant Disorder as a subcategory of the DSM-IV Disruptive Behavior Disorders, is associated with externalizing symptoms (e.g., “Fights with others”, “Argues with others”). Thus, it appears that teachers view students with ODD symptoms as more confrontational and, therefore, more likely to display inappropriate behaviors when having disagreements with their peers. Adjustment of secondary school students with ODD symptoms to classrooms with non-disabled peers will be impeded if these students display confrontational behaviors toward other students. A recent study by Baker (2005) found that secondary teachers indicated low self-efficacy to handle problem behaviors presented by students with emotional and
behavioral disorders, as well as reluctance to provide specific behavioral interventions that would ameliorate student challenging behaviors. Studies by Gersten et al. (1988) and Treder et al., (2000) indicate that some teachers do not want these students in their classrooms. Thus, students who display ODD symptoms may require specialized interventions before they can be included in mainstream regular education classes.

These results suggest that students displaying ODD symptoms would benefit from social skills training. Such training should facilitate their school adjustment in general and make it easier for them to adapt when included in mainstream classes with general education students. The Social Skills Rating Scale subscale scores and items could be used to identify specific social skills deficits for each student. These deficits could then be addressed with interventions tailored to individual students’ needs. Students with externalizing symptoms tend to have a negative behavioral influence on each other when grouped for skills training (Ang & Hughes, 2002). Thus, it is suggested that social skills instruction with students displaying ODD symptoms should be effected on an individual basis. Providing individualized social skills instruction may be a time-consuming procedure, but in the long run it may save both time and administrative resources by helping students with ODD symptoms to fit in with their non-disabled peers and thus adjust to an integrated classroom setting. Follow-up investigations to determine the most effective ways to provide these youth with social skills are needed.

There are several limitations to this research. In previous studies (Jacobsen, Lahey, and Strauss (1983); Lefkowitz and Tesiny (1985); Shah and Morgan (1996) have found that elementary school children who scored higher on self-rated depression were rated by teachers as less socially competent than children who scored lower on depression. While this study controlled for symptoms of other externalizing disorders (i.e., ADHD and CD), it did not control for or assess internalizing symptoms, such as depression and anxiety. It is possible some students with ODD symptoms were also depressed and that this related to their social skills deficits. Depression has been found to co-occur with a diagnosis of CD, another disruptive disorder, (Harrington, Fudge, Rutter, Pickles, & Hill, 1991).

Angold and Costello (1993) reviewed the literature relative to depressive comorbidity in children and adolescents. They indicated that conduct/oppositional disorders showed a significant association with depression in every study. Rates of conduct/oppositional disorders were between 3.6 and 9.5 times higher in depressed than in non-depressed children. They argued that a conduct or oppositional disorder is more
common in depressed than non-depressed children and adolescents. Thus, future research should control for depressive symptoms when examining social skills deficits of students with externalizing symptoms.

Almost all participants in this study came from the lower socio-economic strata and lived mostly in single parent homes. Although the sample was representative of the special education population of the high school from which it was drawn, it may not be representative of special education students in other areas. Furthermore, the overwhelming majority of students were of minority ethnic origin. This limitation may preclude generalization of findings to other ethnic groups.

REFERENCES


Hollingshead, A. B. (1975). Four factor index of social status. Unpublished manuscript, Yale University at New Haven, CT.


