Positive Illusory Bias in Adolescents with Learning Disabilities

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Background

Children and adolescents with learning disabilities (LD) display a positive illusory bias (PIB) characterized by unrealistically positive self-perception of their academic competence [1 2].
The PIB has been hypothesized to serve a self-protective function by protecting children's self-esteem in their area of greatest weakness [1]. However, congruence of parent, teacher and self ratings of behavioral difficulties in adolescents with LD is unknown. This is an important question because students with LD often exhibit problematic behavior and are more distracted and less attentive in class [3]. An understanding of one's strengths and weaknesses is necessary for goal-setting and self-advocacy [2].

Research Questions

Do parents and teachers give similar ratings of adolescent behavioral problems?

When presented with a likert-scale questionnaire, do adolescents with LD underestimate their behavioral problems to a greater extent than their non-LD peers?

When presented with a measure of self-concept, do adolescents with LD acknowledge their behavioral difficulties?

Methods

Sample

■N = 39 (22 LD, 17 control) ■Age = 12-17 years ■Gender = male

Measures

Conners' Rating Scales-Revised

The Conners' Parent, Teacher, and Adolescent Self-Report Scales (CPRS, CASS, CTRS; Conners, 1997) were administered to obtain ratings of the adolescents' inattention, hyperactivity, opposition, emotional problems, and social problems.

The Self-Perception Profile for Adolescents

The SPPA (Harter, 1988) is a self-report questionnaire designed to assess domain-specific judgements of competence, as well as global perception of worth. The Behavioral Conduct scale includes questions about doing the right thing, acting the way one is supposed to, and getting into trouble. The structured alternative format (eg. Some teens feel really good about the way they act, BUT other teens don't feel that good about the way they act) is thought to reduce social desirability bias.

Wechsler Abbreviated Scales of Intelligence

The WASI (Wechsler, 1999) is a standardized abbreviated intelligence test which provides an estimate of general cognitive ability. Vocabulary and matrix reasoning subtests were administered to all participants to obtain an IQ estimate. Participants must have demonstrated an IQ estimate of 80 or above.

Woodcock-Johnson Tests of Academic Achievement – 3rd Edition

This standardized assessment was administered to obtain a measure of the participants' achievement in reading, writing, and math (Woodcock et al., 2001). Standard scores below 90 (25th percentile) on any domain were indicative of below average achievement.

Procedure

Participants with LD were recruited from Integra, a children's mental health agency serving children and adolescents with LD in Toronto, Ontario. LD status was confirmed by cognitive and academic testing. Adolescents with a previous diagnosis of ADHD were excluded from the analyses. Adolescents without LD were recruited through notices posted in schools, family physicians' offices, community centres, and libraries. Data was collected as part of a larger program of research conducted by Dr. Judith Wiener at the Ontario Institute for Studies in Education of the University of Toronto.

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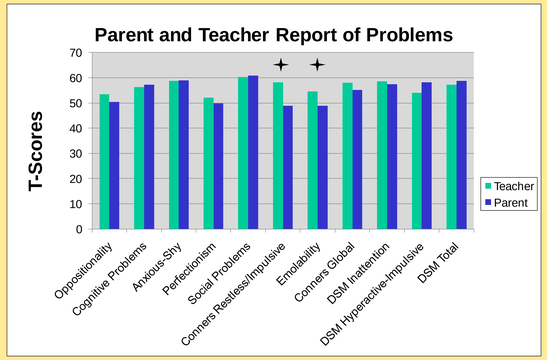

Figure 1. Comparison of Teacher and Parent reports of corresponding subscales on the CTRS and CPRS.
+ denotes a significant difference between ratings.

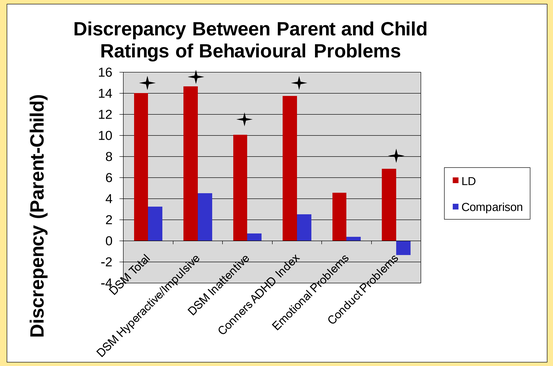

Figure 2. Discrepancies between parent and child ratings on corresponding behavioral problems subscales of the CPRS and CASS.
+denotes a significant difference between discrepencies.

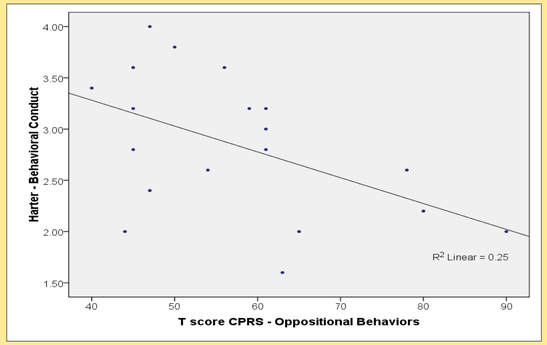

Figure 3. Correlation between parental report of oppositional behaviors and adolescent self-perception of behavioral difficulties (r=-.50, p=.029).

Data Analyses

Parent and teacher reports on the Conners' scales were compared to determine if ratings were similar between reporters. Paired samples t-tests were used to determine if mean T-scores on corresponding subscales of the CPRS and CTRS were significantly discrepant.

Discrepancies between parent and adolescent ratings on the Conners' scales were compared to determine whether adolescents with LD underestimate the severity of their behavioral problems to a greater extent than controls. To calculate discrepancy scores for each parent-child dyad, t-scores on the CASS domains were subtracted from the corresponding t-scores on the CPRS domains. An independent samples t-test was used to determine if discrepancy scores among the LD group were significantly higher than discrepancy scores among the control group.

The relationship between parent-reported behavioral problems and adolescent self-perception of behavioral difficulties was assessed using correlational analyses. A Pearson correlation was used to examine if the Oppositional Scale of the CPRS was significantly correlated with the Behavioral Conduct Subscale on the Harter for adolescents with LD.

Results

Parent and teacher ratings of behavioral and emotional problems were not significantly discrepant for 9 out of 11 domains assessed. Given their similarity, either parent or teacher ratings can be compared to adolescents' self-reports to investigate their estimations of their behavioral problems.

Parent-child discrepancies on several of the Conners' sub-scales were significantly greater for the LD group than the control group. Adolescents with LD were more likely than their non-LD peers to underestimate their problems on DSM Total (p<.01), DSM Inattentive (p=.005), DSM Hyperactive/Impulsive (p=.008), Conners' ADHD (p=.001), and Conduct Problems (p=.007). There were no significant differences between LD and control discrepancies on the Emotional Problems subscale. This confirms the presence of a positive illusory bias in the behavioral ratings of adolescents with LD.

Parent ratings of oppositional behaviors were significantly negatively correlated with adolescents self-perception of behavioral conduct (r=-.50, p=.029). This indicates that higher parent-ratings of oppositional behaviours were associated lower behavioral self-concept.

Discussion and Implications

Adolescents in the present study underestimated the severity of their behavioral problems in comparison to parent reports. However, when given a more general measure assessing self-perception of behavioral difficulties, their self-concept was negatively correlated with parent-reported difficulties. This may indicate that adolescents are generally aware of the behavioral problems reported by their parents, but have difficulty rating the severity of specific behaviors (e.g. when asked to do so on a likert scale). Therefore, assessment measures requiring adolescents to report the severity of their own problems may not be as useful as measures that simply pose the question: Do you experience any difficulty in___? Thus, t-scores from common self-report measures which use likert scales may be inaccurate estimates of the severity of the LD child's difficulties.

These results have practical implications for adolescents with LD. Self-advocacy is particularly important in secondary and post-secondary settings, where parental involvement in academics declines. If adolescents with LD are not able to recognize the severity of their difficulties, they may not advocate for necessary accommodations.

References

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