Perceived social inadequacy and depressed mood in adolescents

FRANK J. ELGAR AND CHRISTINE ARLETT

The goal of the study was to examine stability in, and the relationship between, perceived social inadequacy and depressed mood in a sample of community adolescents. The Checklist of Adolescent Problem Situations (CAPS) and Children’s Depression Inventory (CDI) were administered to 224 high-school students on two occasions 4 months apart. CDI and CAPS scores were positively correlated and test–retest reliability was high in both instruments. Cross-lagged panel correlations, controlled for within-time associations, did not significantly differ. Results indicated that perceived social inadequacy in adolescents is stable over time—indeed independent of its association with depressed mood.

Introduction

Social and emotional functioning during adolescence are intricately linked. Previous studies of community adolescents have found that depressive symptoms positively correlate with difficulties in social functioning (Renouf et al., 1997), more frequent and intense conflict situations (Kaslow et al., 1994; Sheeber and Sorensen, 1998) and feelings of social inadequacy (Dow and Craighead, 1987). Similarly, longitudinal studies have found that adolescents who encounter more conflict (e.g. bullying) are at higher risk of emotional distress than low-conflict adolescents (Rubin et al., 1995; Craig, 1998; Mesman and Koot, 2000), and depressed adolescents subsequently encounter more frequent and difficult conflict situations than non-depressed adolescents (Steele et al., 2000).

Though several studies have shown that depressive symptoms in adolescents are stable over time (e.g. Finch et al., 1987; Weiss et al., 1991), less is known about the stability of perceived social inadequacy or about whether changes in perceived social inadequacy are affected or facilitated by mood. The objective of the present study was to investigate the concurrent and long-term association between the perceived social inadequacy and depressive symptoms using self-report measures that were administered to a sample of community adolescents twice over a 4-month time span.

Methods

Participants

Of 270 adolescents who were invited to take part in the study, 224 (82.96%) agreed to participate and provided written parental consent. These included 104 females and 112 males (gender data were missing from eight participants) from grades 7, 9, and 11 (N=70, 82, 70, respectively). The study was approved by the institutional ethics review board and was conducted in accordance with the principles outlined in the Declaration of Helsinki.

1Presented at the XVI International Congress of Psychology, Montreal, Canada (June 1996). The writing of this article was supported in part by a Home Care Doctoral Fellowship of the Hospital for Sick Children Foundation awarded to Frank Elgar. Appreciation is extended to Drs Albert Kozma and Abraham Ross and two blind reviewers for their comments on previous drafts of this manuscript.

Reprint requests and correspondence should be addressed to: Frank J. Elgar, Department of Psychology, Dalhousie University, Halifax, Nova Scotia, Canada B3H 4J1. (E-mail: fjelgar@is2.dal.ca).
84, and 70, respectively) at Time 1. There was attrition of 33 participants (14.73%) at Time 2. Participants attended six all-grade schools in rural coastal communities of Western Newfoundland.

**Measures**

**Children’s Depression Inventory (CDI).** The CDI (Kovacs, 1985, 1992) is the most widely used self-report measure of childhood depression (Curry and Craighead, 1993). For each of the 27 items, respondents choose one of three statements which best reflects the severity of the symptom (e.g. “I do not feel alone; I feel alone many times; I feel alone all the time”). The CDI quantifies symptoms on five factor-analytically derived subscales (Negative Mood, Interpersonal Problems, Ineffectiveness, Anhedonia and Negative Self-Esteem). Scores range from 0 to 54 with higher scores reflecting greater distress. Reliability studies of community adolescents have shown that the CDI typically has a coefficient alpha in the mid-80’s (Craighead et al., 1998) and yields test–retest reliability coefficients of 0.82 over 2 weeks (Finch et al., 1987), 0.67 over 6 weeks (Finch et al., 1987), and 0.54 over four months (Weiss et al., 1991).

**Checklist of Adolescent Problem Situations (CAPS).** The CAPS (Cavell and Kelly, 1994) is a 75-item self-report assessment of situational sources of perceived social inadequacy which covers seven factor-analytically derived domains: Parents, Siblings, School, Forming Friendships, Maintaining Friendships, Problem Behaviour, and Work. For each item, respondents indicate the frequency and difficulty of a problem situation on 5-point Likert scales. Total scores are derived from summed cross-products of frequency and difficulty scores with higher scores indicating greater social inadequacy. In school-based assessments of Texas adolescents, Cavell and Kelly (1994) found that the CAPS was internally consistent and yielded a test–retest reliability coefficient of 0.84 over weeks.

**Procedure**

The CDI and CAPS were administered to groups of participants in classroom settings during regular class time. These instruments were counterbalanced across sex and grade level. Assessments took place in late spring (May) and again 4 months later (September). Participants were not paid.

**Results**

Adequate internal consistency was found in the CDI (alpha=0.83 at Time 1, 0.85 at Time 2) and the CAPS (alpha=0.79 at Time 1, 0.84 at Time 2). Compared with younger adolescents in the lower grades, older adolescents scored significantly higher on the CDI at baseline, $F(2, 209)=8.52, p<0.01$, and at 4-month follow-up, $F(2, 188)=3.34, p<0.05$ (see Table 1). No grade differences were found on the CAPS, and no sex differences or interactions of grade and sex were found on either measure. Between the baseline and 4-month follow-up assessments, there was an increase in CDI scores, $F(1, 184)=4.99, p<0.05$, but no change in CAPS scores.

Correlations between the CDI and CAPS at baseline (Time 1) and at 4-month follow-up (Time 2) are shown in Figure 1. Test–retest reliability over the 4-month interval was high in
both the CDI, \( r(190)=0.69, p<0.01 \), and the CAPS, \( r(184)=0.70, p<0.01 \). Test–retest reliability of the CAPS was unaffected by depressive symptoms; its test-reliability coefficient of 0.70 dropped modestly to 0.62 after partialling CDI scores from both assessments. Also, the CDI and CAPS were significantly correlated at Time 1, \( r(206)=0.57, p<0.01 \), and Time 2, \( r(196)=0.50, p<0.01 \). Correlations did not vary as a function of sex or grade level.

The CDI and CAPS were also associated over time. Cross-lagged panel correlations were significant—between the CDI (Time 1) and CAPS (Time 2), \( r(185)=0.47, p<0.01 \), and between the CAPS (Time 1) and CDI (Time 2), \( r(187)=0.50, p<0.01 \). Using Fisher’s \( r \) to \( z \) transformation (Edwards, 1965), it was determined that these correlations did not significantly differ, \( z=0.41, p=0.68 \). However, using partial correlations that controlled for within-time associations, these cross-lagged panel correlations were markedly reduced. As

### Table 1  Mean CDI and CAPS scores at baseline (Time 1) and 4-Month Follow-up (Time 2)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Males (S.D.)</th>
<th>Females (S.D.)</th>
<th>Total (S.D.)</th>
<th>Males (S.D.)</th>
<th>Females (S.D.)</th>
<th>Total (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 (N=70)</td>
<td>5.73 (7.66)</td>
<td>3.87 (2.76)</td>
<td>6.11 (6.92)</td>
<td>5.94 (5.81)</td>
<td>3.64 (1.68)</td>
<td></td>
</tr>
<tr>
<td>9 (N=84)</td>
<td>7.02 (5.83)</td>
<td>4.32 (2.43)</td>
<td>6.94 (6.03)</td>
<td>6.10 (4.55)</td>
<td>4.45 (2.18)</td>
<td></td>
</tr>
<tr>
<td>11 (N=70)</td>
<td>9.35 (7.77)</td>
<td>4.80 (3.01)</td>
<td>8.98 (7.08)</td>
<td>10.12 (7.52)</td>
<td>4.46 (2.11)</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>7.38 (6.95)</td>
<td>4.31 (2.67)</td>
<td>7.27 (6.65)</td>
<td>7.33 (6.23)</td>
<td>4.23 (2.04)</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 1.** Correlations between CDI and CAPS at baseline and 4-month follow-up (N=224). Partial correlations control for within-time associations.
seen in Figure 1, the partial correlation between the CDI (Time 1) and CAPS (Time 2), controlled for associations with CAPS (Time 1) and CDI (Time 2), was $r(176)=0.09$, $p=0.24$. Conversely, the correlation between the CAPS (Time 1) and CDI (Time 2), controlled for associations with CDI (Time 1) and CAPS (Time 2), was $r(176)=0.16$, $p<0.05$. These cross-lagged panel (partial) correlations were not significantly different, $z=0.75$, $p=0.45$.

**Discussion**

The present study is the first to report a correlation between the CDI and CAPS. Results show that in community adolescents, perceived social inadequacy is associated with depressed mood. This is consistent with previous studies that have shown that depressed adolescents encounter more conflict than non-depressed adolescents and, conversely, high-conflict adolescents to be at higher risk for subsequent depression (e.g. Kaslow et al., 1994; Renouf et al., 1997; Craig, 1998). However, though scores on these self-report instruments correlate highly, it is not clear whether depressed mood is associated with both perceived social inadequacy and actual difficulties in social functioning.

This is also the first study to report test-reliability in the CAPS beyond 2 weeks. The 4-month test–retest reliability was high and robust after controlling for changes in CDI scores. This result may lend credibility to the CAPS as an instrument that may be predictive of current and future problems in emotional and social functioning. It should also be noted, however, that the association between CAPS at Time 1 and CDI at Time 2 was largely accounted for by shared association with CAPS at Time 2. Weak associations were found in cross-lagged (partialled) correlations which suggests that either perceived social inadequacy and depressed mood are synchronous for adolescents or that methodological flaws in the present study (e.g. the length of time interval, sample size) precluded detection of a temporal sequence.

The increase in CDI scores between the assessments was inconsistent with past studies that have reported reductions in CDI scores between the first and second assessments (e.g. Kaslow et al., 1984; Finch et al., 1987). This change in adolescents’ mood may have been due, in part, to the added stress associated with transition into a new school year (Davis et al., 1999). Although participants were enrolled in all-grade schools and were, therefore, not adapting to new school environments at Time 2, it is possible that their feelings of mastery and self-efficacy in the school environment were dissimilar in the months of May and September.

The absence of sex differences on the CDI was inconsistent with the normative data collected from the instrument, which has shown that males tend to score higher than females (Kovacs, 1992). However, several other studies have also found no sex differences on the CDI or have found females to score higher than males (e.g. Kazdin et al., 1983; Doerfler et al., 1988; Reinherz et al., 1990).

In summary, the CAPS was found to be a reliable measure of social inadequacy over 4 months and was found to correlate highly with the CDI. Although the CDI assesses symptoms relating to social functioning, supplemental instruments such as the CAPS may also be helpful in clinical contexts by identifying domains in which adolescents experience the most difficulty (Cavell and Kelly, 1994).
References


