A PROSPECTIVE EXAMINATION OF SELF-COMPASSION AS A PREDICTOR OF DEPRESSIVE SYMPTOMS IN CHILDREN AND ADOLESCENTS

DARREN STOLOW
Rutgers University

DAVID C. ZUROFF
McGill University

JAMI F. YOUNG, ROBERT A. KARLIN, AND JOHN R. Z. ABELA†
Rutgers University

We examined self-compassion as a predictor of depressive symptoms in children and adolescents using a two time-point design. In addition, the factor structure, reliability, and validity of a version of the Self-Compassion Scale (Neff, 2003) revised for children were assessed. Self-criticism and self-esteem were also tested as predictors of depressive symptoms to assess for unique effects of self-compassion. During an initial assessment, participants completed measures of depressive symptoms, self-compassion, self-criticism, and self-esteem. Participants subsequently completed a measure of depressive symptoms three months later. Two self-compassion factors emerged from a factor analysis, each showing good internal consistency and significant cross-sectional relationships with depressive symptoms. However, only the factor comprised of items from the positively-worded self-kindness, common humanity, and mindfulness subscales of the revised SCS (SCS-POS) predicted change in depressive symptoms from Time 1 to Time 2. Higher levels of SCS-POS were associated with greater decreases in depressive symptoms over time. The factor comprised of items from the negatively-worded...
Self-compassion has recently emerged as a prominent construct in psychological research. Neff and McGehee (2010) proposed three components of self-compassion: (1) self-kindness, which refers to “the ability to treat oneself with care and understanding rather than harsh self-judgment,” (2) common humanity, which refers to “recognizing that imperfection is a shared aspect of the human experience rather than feeling isolated by one’s failures,” and (3) mindfulness, which refers to “holding one’s present-moment experience in balanced perspective rather than exaggerating the dramatic story-line of one’s suffering” (p. 226). A growing number of studies confirm the inverse relationship between self-compassion and depressive symptoms (Macbeth & Gumley, 2012). Unfortunately, the vast majority of this research has been conducted with adult and college-aged samples. Only one published study to date has specifically examined the association between depressive symptoms and self-compassion in an adolescent sample (Neff & McGehee, 2010), and none has examined the applicability of the construct of self-compassion to depressive symptoms in younger, pre-adolescent samples. Despite the intuitive appeal of extending adult theories of depression to children and adolescents, age-related differences in cognition, emotion, and behavior must be taken into account when examining their applicability to younger populations (Digdon & Gotlib, 1985; Garber, 2000). Moreover, the vast majority of research conducted on self-compassion has been cross-sectional (Barnard & Curry, 2011), limiting insight into causal mechanisms.

EVIDENCE FOR BENEFICIAL EFFECTS OF SELF-COMPASSION

Cross-sectional research conducted with adults suggests that the association between self-compassion and depressive symptoms is robust (see MacBeth & Gumley, 2012, and Barnard & Curry, 2011, for reviews), but only two published studies have provid-
ed longitudinal examinations of the effect of self-compassion on depressive symptoms. Specifically, Raes (2011) assessed whether change in depressive symptoms varied as a function of baseline levels of self-compassion over a 5-month interval in a college-aged sample. Findings revealed an effect of self-compassion on depressive symptoms, controlling for baseline depression, with higher levels of self-compassion at baseline predicting lesser increases in depressive symptoms over time. In a study that did not control for baseline levels of depressive symptoms, Terry, Leary, and Mehta (2013) found that students entering college with higher levels of self-compassion reported lower levels of depressive symptoms 4–6 weeks into their first semester.

To our knowledge, only one published study has specifically examined the relationship between self-compassion and depressive symptoms in an adolescent sample. This cross-sectional study conducted with youth in middle to late adolescence (Mean age = 15.2, range 14–17) found that self-compassion was associated with lower levels of depressive symptoms (Neff & McGehee, 2010). In the same study, Neff and McGehee (2010) compared the results obtained in their adolescent sample with those obtained in a young adult sample (Mean age = 21.1, range 19–24), yielding no significant age-related differences in the strength of the association between self-compassion and depressive symptoms. This study provides preliminary evidence that theories of depression and self-compassion may be gainfully extended to youth populations.

The primary goal of the current study was to examine self-compassion as a protective factor against the development of depressive symptoms in these populations. More specifically, we examined self-compassion as a predictor of depressive symptoms in a sample of 5th (9–10 years), 8th (12–13 years) and 11th (15–16 years) grade children and adolescents, thereby testing its protective function over the course of the transition from late-childhood through middle-adolescence to late-adolescence. Expanding on the cross-sectional results of Neff and McGehee (2010), the current study tested the hypothesis that higher levels of self-compassion would be associated with lesser increases in depressive symptoms over a 3-month interval.
The majority of self-compassion research has used the Self-Compassion Scale (SCS; Neff, 2003). The SCS is a 26-item self-report measure containing six subscales designed to assess the three bipolar components of self-compassion: (1) Self-Kindness versus (2) Self-Judgment; (3) Common Humanity versus (4) Isolation; and (5) Mindfulness versus (6) Over-Identification. The use of total scores on the SCS is the most common scoring method (Macbeth & Gumley, 2012). However, recent factor-analytic studies (Armstrong et al., 2015; Lopez et al., 2015; Petrocchi, Ottaviani, & Couyoumdjian, 2013; Williams, Dalgleish, Karl, & Kuyken, 2014) failed to replicate the factor structure reported by Neff (2003); none of the four studies found support for a single higher-order self-compassion factor. Armstrong et al. (2015) and Lopez et al. (2015) suggested that calculating separate scores for positively- and negatively-worded items was preferable to a single total score.

Given the paucity of research on self-compassion conducted with younger samples, it is important to investigate its factor structure, reliability, and construct validity among older children and adolescents. An exploratory factor analysis of the SCS was conducted in order to provide insight into whether the constituent components of self-compassion share sufficient variance to form a unitary construct as postulated by Neff (2003). Further, the reliability of the SCS was assessed by examining the internal consistency of each of the six subscales in the sample as a whole and for each age group. Finally, construct validity was assessed by examining the pattern of associations between the SCS and measures of two constructs with which it would be expected to correlate self-criticism (Blatt, 2004) and self-esteem (Rosenberg, 1965).

In order to provide a stringent test of the longitudinal hypothesis, self-criticism and self-esteem were entered as covariates in an analysis examining the effect of self-compassion on depressive symptoms. We sought to determine whether self-compassion exerted a unique effect on depressive symptoms, possibly highlighting its distinctiveness from other important self-related constructs that have been implicated in youth depression.

Cross-sectional research conducted with adults indicates that self-compassion is inversely related to self-criticism (Neff, 2003).
Despite the substantial correlation between self-compassion and self-criticism \((r = -0.65)\), self-compassion exerted a unique effect on depressive symptoms after controlling for the effects of self-criticism (Neff, 2003). To date, however, no studies have examined the association between self-criticism and self-compassion in children and adolescents. With respect to the relationship between self-compassion and self-esteem, research suggests that they are related, yet distinct, constructs. For example, correlations between self-esteem and self-compassion in adults have ranged from \(r = 0.58\) (Leary, Tate, Adams, Allen, & Hancock, 2007) to \(r = 0.68\) (Neff & Vonk, 2009), suggesting overlap as well as distinctiveness. Nevertheless, self-compassion has been shown to be associated with lower levels of depressive and anxious symptoms (Neff, 2003), as well as lower levels of negative affect (Leary et al., 2007), after partialling out the effects of self-esteem. Such results suggest that self-compassion promotes well-being in ways that are distinct from those of self-esteem. However, no studies to date have examined the relationship between self-compassion and self-esteem in the context of depressive symptoms in children and adolescents. In sum, the goals of the current study were: (1) to examine the factor structure, reliability, and construct validity of the SCS in children and adolescents; (2) to provide a longitudinal examination of self-compassion as a predictor of depressive symptoms in children and adolescents; (3) to examine the unique contribution of self-compassion to depressive symptoms after controlling for self-criticism and self-esteem.

**METHOD**

**PARTICIPANTS**

Participants included 193 children and adolescents (Mean age = 13 years, \(SD = 2.4\) years) recruited from Middlesex County, New Jersey, school districts. The current study was embedded within a 3-year longitudinal research project examining cognitive, interpersonal, and genetic vulnerability to depression conducted at Rutgers University. At the time of their participation in the present study, participants were in the fifth (Mean age = 9.9 years,
STOLOW ET AL.

SD = .61 years), eighth (Mean age = 12.7 years, SD = .58 years) or eleventh (Mean age = 16 years, SD = .56 years) grade. Youth evidencing severe learning or psychiatric problems that were likely to interfere with the completion of a lab-based assessment were excluded from the current study. Final determinations for suitability for inclusion were made by a Ph.D. level psychologist based on diagnostic reports provided by trained research assistants conducting the first lab-based assessments. The total sample was approximately evenly divided by sex (males: 41.0%, females: 59.0%) and grade (fifth: 27.5%, eighth: 40.0%, eleventh: 32.5%). The ethnic composition of the total sample was as follows: 58.0% Caucasian, 17.0% African-American, 14.5% Asian, 6.0% Hispanic, 4.0% Multi-ethnic, and 0.5% of other descent. Total annual family income ranged from $10,000 to $350,000 USD (Mean $109,675; Median $100,000; SD = $65,750).

PROCEDURE

Written assent was provided by each youth at the start of the larger research project. At that time, parents provided informed written consent for their own and their child’s participation. The data used in the current study were drawn from the 18- and 21-month assessment periods of this larger research project, referred to here as Time 1 and Time 2. The procedure consisted of youth (accompanied by one parent) visiting the laboratory for the Time 1 assessment. At Time 1, each youth participant completed the following questionnaires: (a) Children’s Depression Inventory (CDI; Kovacs, 1981), (b) Self-Compassion Scale (SCS; Neff, 2003), (c) Children’s Depressive Experiences Questionnaire, the measure of self-criticism (CDEQ; Abela & Taxel, 2001), and (d) Self-Esteem Questionnaire (SEQ; Rosenberg, 1965). A follow-up assessment (Time 2) evaluating depressive symptoms (CDI) occurred 3 months following the Time 1 assessment (retention rate = 85%). The IRB at Rutgers University approved all procedures. Youth and their participating parent were financially reimbursed for their participation.
Measures

Children’s Depression Inventory (CDI). The CDI (Kovacs, 1981) consists of 27 items assessing the cognitive, affective, and behavioral symptoms of depression. Each item is scored from 0 to 2; total scores range from 0 to 54, with a score of 13 indicating mild depression and a score of 19 indicating severe depression (Kovacs, 1981). At Time 1, participants’ scores ranged from 3 to 22 ($M = 7.43, SD = 5.05$) in fifth graders, 4 to 34 ($M = 9.12, SD = 5.53$) in eighth graders, and 4 to 29 ($M = 11.76, SD = 6.05$) in eleventh graders. At Time 1, we obtained Cronbach alphas of .84, .85, and .86 for fifth, eighth, and eleventh graders, respectively. Corresponding alphas of .71, .76, and .73 were obtained at Time 2 in each age group, respectively.

Self-Compassion Scale (SCS). The original SCS (Neff, 2003) is a 26-item self-report questionnaire designed to assess self-compassion and includes six subscales: Self-Kindness (e.g., I try to be understanding and patient towards those aspects of my personality I don’t like); Self-Judgment (e.g., I’m disapproving and judgmental about my own flaws and inadequacies); Common Humanity (e.g., I try to see my failings as part of the human condition); Isolation (e.g., When I think about my inadequacies it tends to make me feel more separate and cut off from the rest of the world); Mindfulness (e.g., When something painful happens I try to take a balanced view of the situation); and Over-Identification (e.g., When I’m feeling down I tend to obsess and fixate on everything that’s wrong). Responses on the SCS are given on a 5-point scale ranging from Almost Never to Almost Always. Past research using the original SCS with middle- to late-adolescents (Bluth & Blanton, 2013) indicates that the individual subscales demonstrate moderate levels of internal consistency (Cronbach alphas: self-kindness (.64), self-judgment (.83), common humanity (.76), isolation (.78), mindfulness (.72), and over-identification (.74). Alphas of .83 (Bluth & Blanton, 2013) and .90 (Neff & McGehee, 2010) have been obtained for the full 26-item SCS in adolescents.
Good test-retest reliability has been found in adults over three-week \(r = .93\); Neff, 2003) and five-month intervals \(r = .71\); Raes, 2011), suggesting trait-like stability over time.

Although the original SCS has been used in samples of youth in middle- to late-adolescence (Bluth & Blanton, 2013; Neff & McGehee, 2010), the language used in the measure is not accessible to younger child samples. A revised, child-suitable version of the SCS, adapted by Amy Saltzman (K. Neff, personal communication, August 25, 2014) was used in order to ensure comprehension across all participants. In all cases, revisions retained the original meaning(s) of each item from the SCS. For example, items containing the words “flaws and inadequacies” were rephrased using the term “not good enough” to make the concept more accessible. Other advanced or abstract words, phrases, or concepts, such as “part of the human condition” (replaced with “part of life”) and “feeling emotional pain” (replaced with “feeling sad, angry, lonely or afraid”) were similarly simplified to ensure comprehension. As with all of the measures used in the current study, children in grade 5 were offered the option of having a research assistant read aloud each item. Respondents were invited to request clarification from a research assistant on any questionnaire item as needed. Cronbach alphas obtained in the current study for each of the six SCS subscales are presented in Table 2.

*Children’s Depressive Experiences Questionnaire (CDEQ).* The CDEQ (Abela & Taxel, 2001) is a 24-item self-report questionnaire designed to assess dependency and self-criticism, two hypothesized personality predispositions to depression. Items on the CDEQ consist of selected items from the original 66-item DEQ measure (Blatt, D’Afflitti, & Quinlan, 1976) and are worded for youth. For the current study, only the 12-item self-criticism subscale was used. Examples of these items include: “I am only happy when I am succeeding at things” and “If I am not good at everything I do, I get mad at myself.” Items are rated on 3-point scale, including 0 (not true for me), 1 (sort of true for me) and 2 (really true for me). Total scores on the CDEQ range from 0 to 24 with higher scores representing higher levels of self-criticism. In the current study, we obtained Cronbach alphas of .79, .82, and .89 for fifth, eighth, and eleventh graders, respectively.
Self-Esteem Questionnaire (SEQ). A 5-item SEQ (Rosenberg, 1965) was used to assess global self-esteem. For each item, subjects are asked to respond on a 4-point scale ranging from 0 (strongly agree) to 3 (strongly disagree). Total scores range from 0 to 15, with higher scores representing higher levels of self-esteem. The 10-item SEQ has shown moderate to high internal consistency in child and adolescent samples (Abela, Brozina, & Haigh, 2002; Abela & Taylor, 2003). In the current study, Cronbach alphas of .70, .81 and .85 were obtained for fifth, eighth, and eleventh graders, respectively, indicating good internal consistency.

### TABLE 1. Results of Exploratory Factor Analysis for Two Factor Promax Solution

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>SJ</td>
<td>.806</td>
<td></td>
</tr>
<tr>
<td>SJ</td>
<td>.772</td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>.767</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>.733</td>
<td></td>
</tr>
<tr>
<td>SJ</td>
<td>.770</td>
<td>.560</td>
</tr>
<tr>
<td>O</td>
<td>.560</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>.733</td>
<td>.544</td>
</tr>
<tr>
<td>SJ</td>
<td>.693</td>
<td>.544</td>
</tr>
<tr>
<td>I</td>
<td>.682</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>.624</td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>.560</td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>.544</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>-.407</td>
<td>.350</td>
</tr>
<tr>
<td>SK</td>
<td>.728</td>
<td></td>
</tr>
<tr>
<td>CH</td>
<td>.725</td>
<td></td>
</tr>
<tr>
<td>CH</td>
<td>.720</td>
<td></td>
</tr>
<tr>
<td>CH</td>
<td>.700</td>
<td></td>
</tr>
<tr>
<td>SK</td>
<td>.693</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>.681</td>
<td></td>
</tr>
<tr>
<td>SK</td>
<td>.659</td>
<td></td>
</tr>
<tr>
<td>SK</td>
<td>.633</td>
<td></td>
</tr>
<tr>
<td>SK</td>
<td>.600</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>.567</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>.496</td>
<td></td>
</tr>
<tr>
<td>CH</td>
<td>.488</td>
<td></td>
</tr>
</tbody>
</table>

Note. SJ = Self-Judgment; I = Isolation; O = Over-Identification; M = Mindfulness; CH = Common Humanity; SK = Self-Kindness.
The items of the SCS were subjected to a Principal Components Analysis with an oblique rotation (Promax) using SPSS v. 22. The scree test suggested retaining two factors, with eigenvalues of 7.44 and 5.67, respectively. Table 1 provides factor loadings after the Promax rotation. Factor 1 is comprised of items from the Self-Judgment, Isolation, and Over-Identification subscales. Factor 2 consists of items from the Self-Kindness, Common Humanity, and Mindfulness subscales. Because item 22 loaded on both factors, this item was not included when calculating participants’ scores on the Mindfulness subscale of the SCS. All remaining items loaded onto their respective factors with factor loadings exceeding .40. No cross-loading exceeded .32. The two factors did not correlate with one another ($r = -0.03$).

### RELIABILITY AND CONSTRUCT VALIDITY OF THE SCS

Cronbach alphas for the sample as a whole and for each grade are presented in Table 2. In general, the reliabilities for the six subscales in the sample as a whole exceeded .70, with the exception of the mindfulness subscale (Cronbach alpha = .54), which displayed poor reliability across each age group. The over-identification subscale yielded poor reliability in the grade 5 group (Cronbach alpha = .56).

Consistent with the results of the factor analysis of the SCS, two self-compassion scores were calculated for each participant.
Participants’ mean scores on the positive subscales of the SCS—Self-Kindness, Common Humanity and Mindfulness—were summed to create a Self-Compassion-Positive Subscales score (SCS-POS). The same method was used to calculate a Self-Compassion-Negative Subscales score (SCS-NEG) from scores on the Self-Judgment, Isolation and Over-Identification items. In the sample as a whole, high internal consistency was found for SCS-POS (Cronbach alpha = .87) and SCS-NEG (Cronbach alpha = .92). Similarly high internal consistency for SCS-POS (Cronbach alpha = .82, .89, and .87) and SCS-NEG (Cronbach alpha = .89, .91, and .93) were obtained in analyses conducted for each grade.

In order to assess the construct validity of the two self-compassion factors, they were correlated with Time 1 depressive symptoms, self-criticism, and self-esteem (see Table 3). Higher levels of self-criticism were associated with higher scores on the three combined negative subscales of the SCS ($r = .67$), while no relation was found between self-criticism and the combined scores on the three positive subscales ($r = -.11$). The strength of the relationship between self-criticism and SCS-NEG was significantly greater than the strength of the association between self-criticism and SCS-POS, Steiger’s $Z = 6.70$, $p < .001$. In addition, both SCS-NEG and SCS-POS correlated significantly with SEQ, with higher levels of self-esteem associated with higher scores on the positive subscales of the SCS and with lower scores on

| TABLE 3. Means, Standard Deviations, and Pearson Correlations among Time 1 Measures |
|---------------------------------|----|----|----|----|----|----|
| 1. T1 CDI                        | -  |    |    |    |    |    |
| 2. SCS-POS                      | -.15*| -  |    |    |    |    |
| 3. SCS-NEG                      | .58**| .07| -  |    |    |    |
| 4. CDEQ-SC                      | .48**| -.11| -.67**| -  |    |    |
| 5. SEQ                          | -.63**| .23*| -.62**| -.59**| -  |    |
| 6. AGE                          | .31**| .11 | .33**| .29**| -.23**| -  |
| Mean (full sample)              | 9.52| 8.88| 6.86| 19.68| 16.84| 13.04|
| SD                              | 5.81| 2.33| 2.60| 4.94 | 2.69 | 2.42 |

Note. T1 CDI = Time 1 Children’s Depression Inventory; SCS-POS = Self-Compassion Scale—Positive Subscales; SCS-NEG = Self-Compassion Scale-Negative Subscales; CDEQ-SC = Children’s Depressive Experiences Questionnaire—Self-Criticism Subscale; SEQ = Self-Esteem Questionnaire. *$p < .05$; **$p < .01$
Although the correlations between self-esteem and scores on the positive and negative subscales of the SCS were significant, the size of these associations were small ($r = .23$) to moderate ($-.62$), respectively. The absolute value of the correlation between SCS-NEG and self-esteem was significantly stronger than the correlation between SCS-POS and self-esteem, $Z = 4.62$, $p < .001$.

Older participants reported significantly higher levels of depressive symptoms, SCS-NEG and self-criticism, and lower levels of self-esteem, than younger participants (see Table 3). Means and standard deviations for Time 1 variables are presented by grade in Table 4. $T$-tests were conducted to compare the scores of boys and girls on all study variables. Girls reported higher levels of SCS-NEG ($M = 7.29$, $SD = 2.69$) than boys ($M = 6.25$, $SD = 2.35$), $t (189) = -2.75$, $p < .01$. Girls similarly reported significantly higher levels of self-criticism ($M = 20.27$, $SD = 5.26$) than boys ($M = 18.80$, $SD = 4.32$), $t (189) = -2.03$, $p < .05$. No gender differences were observed in levels of depressive symptoms, SCS-POS or self-esteem (all $p > .05$).

**LONGITUDINAL ANALYSES**

A $3 \times 2$ repeated measures ANOVA was conducted with one between-subjects factor (Age: 3 levels) and one within-subjects factor (Time: 2 levels). A significant main effect was found for Time, $F (1, 190) = 38.55$, $p < .001$, indicating that in the sample as a whole, Time 2 CDI scores were significantly lower than Time 1 CDI scores. The Age $\times$ Time interaction was not significant, $F$
(2,190) = 2.11, \( p = .12 \), indicating that all three age groups experienced similar levels of decline in their baseline levels of depressive symptoms over the 3-month interval.\(^1\)

In order to test whether the two self-compassion factors predicted change in depressive symptoms over time, we conducted hierarchical multiple regression analyses. The dependent variable was Time 2 CDI scores. First, Time 1 CDI scores were entered into the equation. This controlled for differences between participants in symptom levels at Time 1. Second, in separate regression analyses, the self-related variable of interest (i.e., SCS-POS, SCS-NEG, CDEQ-SC, and SEQ) was entered into the second step of the model. Last, in order to examine unique effects, a regression analysis was conducted with all four self-related variables entered simultaneously into the second step of the model. In preliminary analyses, we regressed Time 2 CDI scores on Time 1 CDI scores, SCS-POS, Age, and the SCS-POS \( \times \) Age interaction to examine possible moderating effects of age. Similar analyses were conducted to examine the effect of SCS-NEG and the SCS-NEG \( \times \) Age interaction. Gender was similarly evaluated for any main effects and/or interactions with SCS-POS and SCS-NEG. None of the main effects or two-way interactions involving age or gender were significant. Therefore, for the sake of simplicity, results in Table 5 are presented for the entire sample.

Table 5 presents unstandardized (\( B \)) and standardized (\( \beta \)) regression coefficients for the potential predictors. As can be seen, SCS-POS scores were a significant predictor of change in CDI scores from Time 1 to Time 2 when entered in the second step of the hierarchical regression. Higher levels of SCS-POS predicted greater decreases in CDI scores over time, controlling for age, gender, and Time 1 depressive symptoms (\( \beta = -.13, p < .05 \)). SCS-NEG scores were not a significant predictor of change in depressive symptoms from Time 1 to Time 2. CDEQ-SC scores were also not a significant predictor of change in CDI scores from Time 1 to Time 2. However, SEQ scores were a significant predictor of change in CDI scores from Time 1 to Time 2. Higher levels of self-esteem predicted greater decreases in CDI scores over time,

---
\(^1\) As noted by Twenge & Nolen-Hoeksema (2002), decreases in depressive symptoms over time with successive administrations of the CDI within a longitudinal study is not uncommon.
controlling for age, gender, and Time 1 depressive symptoms ($\beta = -.21$, $p < .01$).

When all four potential predictors were entered simultaneously in the second step of the regression, none of the self-related variables remained significant predictors of change in depressive symptoms from Time 1 to Time 2. However, the effects of SCS-POS ($p = .076$) and self-esteem ($p = .063$) remained trends, with each predicting a nearly significant amount of unique variance in change in depressive symptoms.

**DISCUSSION**

There were six principal findings. First, two distinct factors emerged from our factor analysis of the SCS, one comprised of 12 items from the positive subscales of the SCS (SCS-POS) and one comprised of 13 items from the negative subscales (SCS-NEG). Second, the two SCS factors displayed adequate reliability for research with children and adolescents. Third, the factors demonstrated good construct validity, exhibiting associations with self-criticism and self-esteem, as well as with depressive symptoms. Fourth, children and adolescents possessing higher levels of self-
kindness, common humanity, and mindfulness (SCS-POS) exhibited greater decreases in depressive symptoms over time than those with lower levels of these positive aspects of self-compassion. At the same time, however, higher levels of self-judgment, isolation, and over-identification (SCS-NEG) did not influence levels of depressive symptoms over time. Fifth, consistent with past cross-sectional research in adult samples, self-esteem, and SCS-POS appear to be related, yet distinct, constructs. Finally, SCS-POS and self-esteem both exhibited a protective function in the context of depressive symptoms in children and adolescents.

Our finding that the positive and negative subscales formed two nearly orthogonal factors was consistent with emerging research questioning the total score on the SCS even in adult populations (Armstrong et al., 2015; Lopez et al., 2015; Petrocchi et al., 2014; Williams et al., 2014). In the current study, the positively-worded items comprising the self-kindness, common humanity, and mindfulness subscales of the SCS adhered as SCS-POS, and the negatively-worded items comprising the self-judgment, isolation, and over-identification subscales adhered as SCS-NEG. SCS-POS and SCS-NEG were unrelated to each other, suggesting that they are not mutually exclusive within an individual. As noted by Neff (2003), “a person may tend not to judge himself, but that doesn’t necessarily mean that he takes proactive steps to be kind to himself either” (p.234). Similar reasoning may be applied to the Common Humanity vs. Isolation and Mindfulness vs. Over-Identification components. The current findings indicate a need to re-examine the factor structure of the SCS, across age and other demographic variables.

The subscales of the SCS, with the exception of Mindfulness, exhibited Cronbach alphas within the acceptable range. In addition, the Over-Identification subscale exhibited low reliability in grade 5 children, yet exhibited adequate reliability in older children and adolescents. These results suggest that the revised version of the SCS used in the current study represents an adequately reliable measure for use with children and adolescents. However, caution should be taken when interpreting results based on the Mindfulness subscale of this version of the SCS—as well as its posited maladaptive corollary, Over-Identification—particularly among younger children. With the exception of the
Mindfulness subscale, findings from the reliability analyses conducted by Bluth and Blanton (2013) on each of the six subscales of the original SCS—administered to adolescents between the ages of 14 and 18—were broadly similar to those obtained in the current study. For research with child and adolescent samples, a more reliable measure assessing the specific skills entailed by the multifaceted construct of mindfulness may be indicated for researchers specifically interested in this area (see Greco, Baer, & Smith, 2011).

With respect to construct validity, both SCS-POS and SCS-NEG were associated with concurrent depressive symptoms. More specifically, higher levels of depressive symptoms at Time 1 were associated with higher levels of SCS-NEG and lower levels of SCS-POS at Time 1. The relationship between self-criticism and SCS-NEG was significant and substantial in magnitude (r = .67), suggestive of similarities between these constructs. The relationship between self-esteem and SCS-POS was small but significant (r = .23), suggesting that while they share some characteristics, they are relatively distinct constructs. Consistent with Neff (2003), both self-esteem and self-compassion entail having positive feelings towards the self. Such positive feelings may, in turn, engender expressions of warmth and kindness towards the self. At the same time, however, it is possible that esteeming oneself highly does not necessarily imply the ability to treat oneself with warmth and kindness. Furthermore, neither the capacity to recognize the universality of one’s experience of adversity and/or suffering in the world, nor the ability to adopt a mindful awareness of one’s negative internal experiences, is necessarily concomitant with self-valuing. In addition, while the positive correlation between SCS-POS and self-esteem was small, the negative correlation between self-esteem and SCS-NEG was significant and substantial. This may suggest that esteeming oneself highly is associated with an absence of harsh self-judgment—a finding that is further supported by the robust negative correlation between self-esteem and self-criticism—as well as a decreased inclination towards isolation during times of adversity and a reduced tendency to become carried away with one’s negative internal experience. Taken together, this pattern of associations suggests that the presence of the positive components of self-
compassion may be less readily apparent in individuals with high self-esteem than the absence of the negative ones.

In terms of our longitudinal analyses of the two self-compassion factors, SCS-POS predicted decreases in depressive symptoms, while SCS-NEG did not. This pattern of results was consistent across age and gender, suggesting that they may be broadly applicable across boys and girls between the ages of 9 and 16. The finding that SCS-NEG did not predict change in depressive symptoms was unexpected. However, it was consistent with our finding that self-criticism—the other vulnerability factor assessed in the current study—similarly did not predict levels of depressive symptoms over time. It is possible that subsequent studies will reveal a different pattern. At the same time, it is possible that the vulnerability (i.e., self-criticism and SCS-NEG) and protective factors (i.e., self-esteem and SCS-POS) functioned differently. Vulnerability factors may exert depressogenic effects in the presence of stress—requiring an analysis of the vulnerability × stress interaction—while protective factors exert a main effect on depressive symptoms, independent of stress. Although this explanation is consistent with the current findings, future research and replication is required before drawing such a conclusion.

The finding that the effects of SCS-POS and self-esteem were reduced to trend levels when both were entered into the model suggests that they may be exerting their protective functions through partly similar mechanisms. At the same time, they each continued to approach conventional levels of significance in what may be considered a highly conservative test. Therefore, the current results suggest that they each warrant future research examining their unique and common aspects in the context of depressive symptoms in children and adolescents.

Several limitations of the current study should be noted. First, the absence of stress or social support data necessitated a focus on main effects when assessing vulnerability and protective factors on child and adolescent depressive symptoms. Additional interactive models should be explored in future research, such as conducting vulnerability × stress or vulnerability × stress × support analyses. Such an approach would be theoretically congruent with Neff’s conceptualization of self-compassion as a pro-
tective factor in the context of personal adversity or suffering. Second, the study used a two time-point design and therefore lacks the statistical power and precision that is afforded by analyses based on multiple assessments over longer periods of time. Third, the SCS was administered once and therefore the relative stability of self-compassion over time could not be assessed. Fourth, depressive symptoms were the sole dependent variable, while future research may benefit from examining the role of self-compassion in the context of additional types of symptoms commonly observed among children and adolescents in clinical and nonclinical contexts, such as anxiety or externalizing symptoms. Fifth, the current study used a sample of children and adolescents exhibiting sub-clinical levels of depressive symptoms and thus the extent to which our findings can be generalized to those experiencing clinically-significant levels of symptoms remains unknown. Finally, the current study represents the first to operationalize self-compassion as two distinct factors in a child and adolescent sample and therefore comparisons to other studies investigating the predictive validity of this construct in this way is not possible. As a result, our findings are in need of replication. Thus, given the relative paucity of research conducted to date on self-compassion in children and adolescents, as well as the absence of comparative longitudinal studies, guarded optimism may be appropriate before drawing strong conclusions about the effects of self-compassion on depressive symptoms in these populations.

Self-compassion continues to grow as an increasingly well-recognized construct within the field of mental health, both in terms of basic and applied research and clinical practice. Based on the findings of the current study, researchers interested in developing a better understanding of the factors that contribute to depressive symptoms in children and adolescents appear to have at their disposal an adequate method of assessing this construct. In addition, our results suggest that fostering the development of the positive aspects of self-compassion in these populations may confer benefits in the context of depressive symptoms. Further, our results suggest that self-compassion exerts positive effects on depressive symptoms comparable to, yet independent from, those of self-esteem. Thus self-compassion enhancement may
represent a viable alternative or adjunct to self-esteem enhancement when considering targets for treatment and prevention efforts. Future research examining the effects of self-compassion on additional symptom outcomes is warranted. Such research may serve to highlight the extent of self-compassion’s reach beyond depressive symptoms in protecting children and adolescents from undue distress in its various forms across life’s inevitable setbacks and challenges over the course of development.

REFERENCES


