Depression Self-Rating Scale: Utility With Child Psychiatric Inpatients

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The validity of the Depression Self-Rating Scale (DSRS) was assessed in a sample of 82 consecutively admitted child psychiatric inpatients. Results indicated that DSRS scores significantly discriminated between children who had been independently diagnosed as meeting Diagnostic and Statistical Manual of Mental Disorders (DSM-III; American Psychiatric Association, 1980) criteria for depressive and nondepressive disorders. Cutting scores were generated for the DSRS that produced overall rates of correct classifications ranging from 66% to 77%, with very few false positive errors. DSRS scores were highly correlated with children's self-reports on the Children's Depression Inventory (CDI), but did not correlate significantly with ward ratings of depression, even though these ward ratings provided some differentiation of depressed and nondepressed children. These results indicate that the DSRS can provide a useful clinical and research tool for assessing childhood depression. However, these results also suggest that optimal procedures for identifying depressed and nondepressed children will involve the combined use of measures completed by different informants.

Although the existence of childhood onset depressive disorders has been controversial, recent research has demonstrated that both the Research Diagnostic Criteria and the Diagnostic and Statistical Manual of Mental Disorders (DSM-III; American Psychiatric Association, 1980) criteria can be employed to reliably identify children with major depression, dysthymia, and more minor depressive disorders. Childhood onset depressive disorders have also been found to be more frequent and more persistent than previously thought (Carlson & Cantwell, 1980; Kashani et al., 1983; Kovacs, Feinberg, Couse-Novak, Paulauskas, & Finkelstein, 1984; Kovacs, Feinberg, Couse-Novak, Paulauskas, Pollock, & Finkelstein, 1984). These developments have led to increased recognition of the need to develop psychometrically adequate measures of depression in children.

Research on adult depression has frequently identified depressed populations on the basis of standardized self-report instruments. As self-report measures of depression have been developed for children, a similar trend toward defining depressed populations on the basis of self-report ratings has been evident in the child literature (Kaslow, Tannenbaum, Abramson, Peterson, & Seligman, 1983; Lefkowitz & Tesiny, 1980; Schwartz, Friedman, Lindsay, & Narrol, 1982). To date, however, there is surprisingly little data on these children's self-report measures (Kaslow & Rehm, in press; Kazdin & Petti, 1982; Strober & Werry, in press).

The present study evaluated the validity of the Depression Self-Rating Scale (DSRS). Currently, there is only one published article on this measure (Birleson, 1981). This article showed that DSRS scores could be employed to discriminate depressed children from nondepressed children. However, because the criterion validity of the DSRS was demonstrated...
on the same sample that was employed to derive the scale items, confirmation of the discriminating power of the DRSRS requires testing on an independent sample. The present study evaluated the criterion validity of the DRSRS by assessing the extent to which DRSRS scores discriminated depressed from nondepressed children in an independent sample. Additionally, the concurrent validity of the DRSRS was examined by evaluating the correlation between DRSRS scores and other self-report and observational measures of depression.

Several factors contributed to our interest in evaluating the utility of the DRSRS for assessing child depression. First, although the Children's Depression Inventory (CDI) has been used more widely than the DRSRS, the format of the CDI requires the child to select one sentence from a series of three sentences that have to be considered simultaneously. This format appeared to tax the attention spans of many of our child psychiatric inpatients. Moreover, due to difficulties in attending and sitting still in our children, a shorter instrument seemed to have some potential advantages over the lengthier CDI. The hope was, therefore, that the shorter and simpler format of the DRSRS would provide a means of assessing children with somewhat younger chronological and mental ages. Moreover, given the demonstrated utility in the adult literature of having several self-rating scale formats, additional data on the validity of a second self-report scale could provide empirical data to guide researchers and clinicians seeking self-report inventories with alternative formats to that of the CDI. The DRSRS, like the Zung Depression Scale (Zung, 1965), includes frequency estimations of various symptoms and thus was an obvious choice as an alternative to the CDI.

Method

Subjects

Eighty-two children selected from consecutive admissions to the Preadolescent Service at the UCLA Neuropsychiatric Institute participated in the study. This acute care inpatient unit houses approximately 15 children at a time between the ages of 6 and 13, with an average length of stay of roughly 3 months. Children are admitted for a variety of disorders including acute psychotic episodes, highly suicidal behavior or ideation, extreme aggressive or destructive behavior, severe anxiety symptoms, or acute family stress. Criteria for inclusion in the study were (a) a Full-Scale Wechsler Intelligence Scale for Children-Revised (WISC-R) IQ of 70 or above, (b) no evidence of acute confusional state, (c) age above 8, and (d) informed consent by child and parent to participate in the study. The sample consisted of 22 girls and 60 boys, with a mean age of 10.76 years old. Thirty-six children were white; nine were black, and 10 were of Hispanic descent. Family social class calculated by the Duncan Socioeconomic Index (Hauser & Featherman, 1977) ranged from 131 to 923, revealing a wide range of socioeconomic levels in the sample. WISC-R Full-Scale IQ ranged from 73 to 128.

Diagnoses using DSM-III criteria were made by one of the authors after the child was discharged from the hospital based on results of direct interviews with the child and parents using the Schedule for Affective Disorders and Schizophrenia for School Age Children (K-SADS-E; Puig-Antich, Orvaschel, Tabrizi, & Chambers, 1983) modified by items to reflect depression severity and longitudinal observations of the child's clinical status during the course of hospitalization. For 17 children for whom K-SADS interviews were not available, the K-SADS was completed on the basis of a review of the child's records. Diagnosticians were naive to self-report and behavioral observation scores. Reliability was assessed by having another clinician independently review each child. Agreement on whether the child met criteria for a depressive disorder (major depression, dysthymia, or adjustment disorder with depressed mood) or a nondepressive disorder was relatively high (kappa = .81, p < .001).

Because elevated rates of depressive symptoms would be expected in children presenting with the three depressive disorders, most of the analyses conducted in the present study contrasted depressed and nondepressed groups. However, it was also of interest to determine the reliability of individual diagnostic categories. Because this level of reliability was not as critical to the study as was agreement on whether a child was classified as depressed or nondepressed, reliability for specific diagnostic categories was assessed for 33% of the children. Agreement on principal Axis I diagnoses was relatively high (kappa = .82, p < .001). Principal diagnoses included major depression (n = 16), dysthymic disorder (n = 18), adjustment disorder with depressed mood (n = 5), anxiety disorder (n = 5), attention deficit disorder (n = 8), conduct disorder (n = 21), and other mental disorder (n = 9). For the purpose of this study, depression diagnoses were considered primary. Consistent with prior research indicating high rates of multiple diagnoses in child psychiatric patients (Carlson & Cantwell, 1980; Kovacs, Feinberg, Crouse-Novak, Paulauskas, & Finkelstein, 1984; Kovacs, Feinberg, Crouse-Novak, Paulauskas, Pollock, & Finkelstein, 1984), many children presented with multiple diagnoses. Within the depressed group, 12 children presented with concurrent conduct disorders, 6 children presented with concurrent anxiety disorders, 2 children presented with concurrent conduct and anxiety disorders, 3 children presented with concurrent attention deficit disorder with hyperactivity, and 16 children presented with only depression diagnoses.
Depression Ratings

Within the first 2 weeks after admission, the child’s self-report of depressed mood was obtained using a modified version of the Depression Self-Rating Scale (DSRS; Birleson, 1981) by an interviewer who was naive to the criterion diagnoses employed in the study. Because children were asked to rate experiences during the past 2 weeks, children’s ratings were largely made on their prediagnosis and early postadmission symptoms. Patterned after the Zung, the DSRS contains 18 items that refer to affect, cognitive, and behavioral symptoms of depression. In order to avoid bias due to response set, some items are phrased positively such that endorsement reflects the presence of depressive symptoms, whereas other items are worded negatively such that endorsement indicates the absence of the symptom. For the present study, the child was asked to rate the severity of these symptoms on a 0–2 scale (present, always, sometimes, or never). Items were scored in the direction of disturbance.

The modified DSRS employed in this study included 3 additional depression items aimed at providing wider coverage of DSM-III criteria for depressive disorders, 3 hopelessness items derived from the Hopelessness Scale developed by Beck, Weissman, Lester, and Trexler (1974), and 2 items assessing the child’s capacity for empathy. The empathy items were added as part of another study. Questions and response alternatives were read, and the child’s responses were recorded. Total scores were calculated by summing across items for the original 18-item scale, the modified 21-item scale, the 3 hopelessness items, and the 2 empathy items.

In order to examine the relation of DSRS scores to scores on another frequently used self-report measure of depression, the Children’s Depression Inventory (CDI) was administered to a subset of 24 consecutively admitted children within the larger sample. The subset of children in the CDI sample was not preselected in any way and represented a series of consecutive admissions during the period in which the CDI was added to the assessment procedures. The CDI is similar to the Beck Depression Inventory and includes 27 items to assess depressive symptoms like those evaluated using the DSRS. For each CDI item, the child is asked to select one of three sentences (0–2-point scale) that best describes him or her during the past 2 weeks. The CDI was administered during the same session as the DSRS, using the same standard procedures. Order of scale administration was counterbalanced across children.

Behavioral observations of depressive symptoms were recorded by means of the Children’s Depression Rating Scale (CDRS; Poznanski, Cook, & Carroll, 1979). This scale contains 15 items that are symptoms of depression such as weeping, morbid ideation, capacity to have fun, social withdrawal, sleep disturbance, and appetite disturbance. The CDRS was originally designed to be completed after parent and child interviews and after relevant data from outside sources (e.g., school) had been reviewed. In the present study, the CDRS was employed to rate depressive behavior during the first month of the child’s hospitalization. This scale was completed jointly by the child’s primary nurse and another member of the child’s treatment team who was responsible for his or her care and had observed the child’s behavior. It was chosen because anchor points are included to facilitate rating, and pilot testing indicated acceptable reliability levels, r(10) = .92, p < .001.

Results

Preliminary Analyses

Prior to conducting the major data analyses, preliminary analyses were completed to compare depressed with nondepressed children regarding age; sex; race; socioeconomic status; and WISC-R Verbal, Performance, and Full-Scale IQ. Differences were found only for sex. There were significantly more boys in the nondepressed group than in the depressed group, χ²(1, N = 82) = 4.00, p < .05. This is consistent with the general findings of higher rates of boys in comparison to girls in child psychiatric populations and relatively high ratios of girls to boys among children with depressive disorders in comparison to children with other nondepressive disorders (Kovacs, Feinberg, Crouse-Novak, Paulauskas, & Finkelstein, 1984). Preliminary analyses also indicated that order of scale administration had no significant effects on DSRS or CDI scores. Consequently, order was not entered as a factor in subsequent analyses.

Criterion Validity

The criterion validity of the DSRS was evaluated by determining the extent to which DSRS scores discriminated child patients who had been independently diagnosed as depressed from those who had been diagnosed as nondepressed. Depression Diagnosis × Sex × Age (2 × 2 × 2) analyses of variance
(ANOVAS) indicated that depressed children scored significantly higher than nondepressed children on both the original 18-item scale, \( F(1, 74) = 10.84, p < .002 \), and on our extended 21-item scale, \( F(1, 74) = 11.41, p < .002 \), thus providing preliminary evidence of the criterion validity of these scales. Marginally significant main effects for sex were also obtained. Girls scored somewhat higher than did boys on both the 18-item, \( F(1, 74) = 3.70, p < .06 \); and 21-item scales, \( F(1, 74) = 3.86, p < .06 \). There were no other significant main or interaction effects, and no significant differences were found in the DSRS scores of children presenting with major depression, dysthymic disorder, and adjustment disorder with depressed mood. Additionally, when children within the depressed group were subdivided on the basis of their concurrent diagnoses, no significant between-groups differences were found in DSRS scores.

Because the original scale was derived by identifying items that differentiated depressed from nondepressed children in Birleson’s (1981) British sample, it was of interest to determine whether these items would also discriminate depressed from nondepressed children in our California sample. This question was evaluated by means of a Depression Diagnosis × Sex × Age (2 × 2 × 2) multivariate ANOVA with Wilks’s criterion performed on the 21 depression items. This analysis yielded significant main effects for diagnosis, \( F(21, 51) = 2.14, p < .02 \), and a marginally significant effect for sex, \( F(21, 51) = 1.58, p < .10 \). Results of univariate ANOVAS conducted for each item, standard deviations for the two diagnosis groups, and scoring information are shown in Table 1. Depressed children scored significantly higher than did nondepressed children on 7 of the original 18 items (Items 4, 5, 6, 10, 15, 16, and 18). Thus, over a third of the original items continued to demonstrate some discriminatory power in our independent sample. None of the 3 depression items added to the original scale discriminated between diagnostic groups. Significant sex differences were found for 2 of the original items (Items 2 and 3). Consistent with prior findings of positive correlations between depression and hopelessness in psychiatrically disturbed children (Kazdin, French, Unis, Esveldt-Dawson, & Sherick, 1983), a 2 × 2 × 2 (Diagnosis × Sex × Age) ANOVA performed on the sum of the 3 hopelessness items yielded a marginally significant effect for diagnosis, \( F(1, 74) = 3.82, p < .06 \). As shown in Table 1, Item 22 was most sensitive to the differences between diagnostic groups. There were no significant differences as a function of diagnosis, sex, or age on the 2 empathy items.

Although the findings just reported indicate that DSRS scores provide some differentiation of depressed from nondepressed samples, the utility of the DSRS for practical diagnostic purposes depends on the extent to which DSRS scores can be used to correctly classify children as depressed and nondepressed. Presented in Figure 1 are the distributions of scores for depressed and nondepressed children on both the original 18-item and extended 21-item versions of the DSRS. Inspection of Figure 1 reveals that there was considerable overlap occurring in the low and middle ranges of scores. The effectiveness of the DSRS for identifying depressed and nondepressed children can be summarized using four major indexes: (a) sensitivity, the percentage of depressed children who are identified as depressed using their DSRS scores (i.e., true positives); (b) homogeneity, the percentage of depressed children among all of the children who were positively identified as depressed using DSRS scores (i.e., predictive utility for positives); (c) specificity, the percentage of nondepressed children who are identified as nondepressed using DSRS scores (i.e., true negatives); and (d) the percentage of correct classifications of depressed and nondepressed children using DSRS scores. Using the cutting score of equal to or greater than 13 originally suggested by Birleson (1981), the original 18-item DSRS had a sensitivity of 64% (25/39), a homogeneity of 83% (25/30), a specificity of 88% (38/43), and an overall rate of 77% (63/82) correct classifications in the present sample. Specificity and homogeneity can be increased to 100% by using a cutting score of 16. However, this results in reductions in sensitivity (28%, 11/39) and in overall rate of correct classifications (66%, 54/82).

As might be expected from the fact that the 3 items added to the original scale did not significantly discriminate depressed from
### Table 1

**Analysis of Variance Results and Means and Standard Deviations for Depressed and Nondepressed Children on DSRS Items**

<table>
<thead>
<tr>
<th>Item</th>
<th>Group</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Depressed M</td>
<td>SD</td>
<td>Nondepressed M</td>
<td>SD</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>1. I look forward to things as much as I used to.</td>
<td>0.53</td>
<td>0.65</td>
<td>0.70</td>
<td>0.74</td>
<td>0.16</td>
<td>N*</td>
</tr>
<tr>
<td>2. I sleep very well.</td>
<td>0.85</td>
<td>0.71</td>
<td>0.56</td>
<td>0.67</td>
<td>1.16</td>
<td>N</td>
</tr>
<tr>
<td>3. All I can see ahead of me is unpleasantness rather than pleasantness.</td>
<td>0.92</td>
<td>0.81</td>
<td>0.97</td>
<td>0.80</td>
<td>0.02</td>
<td>P</td>
</tr>
<tr>
<td>4. I feel like crying.</td>
<td>1.10</td>
<td>0.55</td>
<td>0.70</td>
<td>0.60</td>
<td>8.53**</td>
<td>P</td>
</tr>
<tr>
<td>5. I feel like running away.</td>
<td>0.90</td>
<td>0.64</td>
<td>0.36</td>
<td>0.53</td>
<td>7.89**</td>
<td>P</td>
</tr>
<tr>
<td>6. I get stomach aches.</td>
<td>0.90</td>
<td>0.68</td>
<td>0.65</td>
<td>0.57</td>
<td>5.51*</td>
<td>P</td>
</tr>
<tr>
<td>7. I have lots of energy.</td>
<td>0.37</td>
<td>0.54</td>
<td>0.23</td>
<td>0.48</td>
<td>1.13</td>
<td>N</td>
</tr>
<tr>
<td>8. I have great faith in the future.</td>
<td>0.90</td>
<td>0.75</td>
<td>0.63</td>
<td>0.69</td>
<td>2.15</td>
<td>N</td>
</tr>
<tr>
<td>9. I enjoy my food.</td>
<td>0.59</td>
<td>0.59</td>
<td>0.58</td>
<td>0.54</td>
<td>0.63</td>
<td>N</td>
</tr>
<tr>
<td>10. I think life is not worth living.</td>
<td>0.82</td>
<td>0.69</td>
<td>0.46</td>
<td>0.63</td>
<td>4.08*</td>
<td>P</td>
</tr>
<tr>
<td>11. I can stick up for myself.</td>
<td>0.38</td>
<td>0.59</td>
<td>0.35</td>
<td>0.57</td>
<td>0.25</td>
<td>N</td>
</tr>
<tr>
<td>12. I enjoy the things I do as much as I used to.</td>
<td>0.56</td>
<td>0.64</td>
<td>0.37</td>
<td>0.62</td>
<td>0.41</td>
<td>N</td>
</tr>
<tr>
<td>13. I like talking with my family.</td>
<td>0.46</td>
<td>0.60</td>
<td>0.49</td>
<td>0.67</td>
<td>0.00</td>
<td>N</td>
</tr>
<tr>
<td>14. I feel sad when other people have problems.</td>
<td>0.83</td>
<td>0.62</td>
<td>1.10</td>
<td>0.67</td>
<td>0.75</td>
<td>N</td>
</tr>
<tr>
<td>15. I have horrible dreams.</td>
<td>1.05</td>
<td>0.80</td>
<td>0.56</td>
<td>0.70</td>
<td>5.25*</td>
<td>P</td>
</tr>
<tr>
<td>16. I feel very lonely.</td>
<td>1.10</td>
<td>0.68</td>
<td>0.56</td>
<td>0.67</td>
<td>10.17**</td>
<td>P</td>
</tr>
<tr>
<td>17. I am easily cheered up.</td>
<td>0.90</td>
<td>0.72</td>
<td>0.58</td>
<td>0.59</td>
<td>2.33</td>
<td>N</td>
</tr>
<tr>
<td>18. I feel so sad I can hardly stand it.</td>
<td>1.08</td>
<td>0.70</td>
<td>0.56</td>
<td>0.63</td>
<td>15.35**</td>
<td>P</td>
</tr>
<tr>
<td>19. I am good at things I do.</td>
<td>0.40</td>
<td>0.55</td>
<td>0.30</td>
<td>0.46</td>
<td>0.05</td>
<td>N</td>
</tr>
<tr>
<td>20. I feel very bored.</td>
<td>1.20</td>
<td>0.57</td>
<td>0.95</td>
<td>0.69</td>
<td>0.17</td>
<td>P</td>
</tr>
<tr>
<td>21. I like to have fun.</td>
<td>0.21</td>
<td>0.41</td>
<td>0.12</td>
<td>0.39</td>
<td>0.17</td>
<td>N</td>
</tr>
<tr>
<td>22. I feel there is no use in trying to get something I want</td>
<td>0.92</td>
<td>0.66</td>
<td>0.73</td>
<td>0.67</td>
<td>3.31</td>
<td>P</td>
</tr>
<tr>
<td>because I probably will not get it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. I think seriously about killing myself.</td>
<td>0.53</td>
<td>0.69</td>
<td>0.30</td>
<td>0.51</td>
<td>0.81</td>
<td>P</td>
</tr>
<tr>
<td>24. My mind wanders and I cannot concentrate.</td>
<td>0.97</td>
<td>0.74</td>
<td>0.72</td>
<td>0.67</td>
<td>0.41</td>
<td>P</td>
</tr>
<tr>
<td>25. I get annoyed and angry very easily.</td>
<td>1.54</td>
<td>0.60</td>
<td>1.23</td>
<td>0.78</td>
<td>3.68</td>
<td>P</td>
</tr>
<tr>
<td>26. It makes me happy when sad things happen to other people.</td>
<td>0.12</td>
<td>0.33</td>
<td>0.29</td>
<td>0.68</td>
<td>0.32</td>
<td>P</td>
</tr>
<tr>
<td>Total original 18-item scale</td>
<td>13.31</td>
<td>5.22</td>
<td>9.07</td>
<td>3.34</td>
<td>10.84**</td>
<td></td>
</tr>
<tr>
<td>Total modified 21-item scale</td>
<td>16.33</td>
<td>5.75</td>
<td>11.33</td>
<td>4.19</td>
<td>11.41**</td>
<td></td>
</tr>
<tr>
<td>Total hopelessness items</td>
<td>2.74</td>
<td>1.55</td>
<td>2.23</td>
<td>1.21</td>
<td>3.82</td>
<td></td>
</tr>
<tr>
<td>Total empathy items</td>
<td>0.92</td>
<td>0.73</td>
<td>1.37</td>
<td>1.13</td>
<td>1.06</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** DSRS = Depression Self-Rating Scale.

* N = negative scoring, 0 = most of the time, 1 = sometimes, 2 = never; P = positive scoring, 2 = most of the time, 1 = sometimes, 0 = never.

b Hopelessness item.

* Wording modified slightly from Birleson's form.

* Empathy item.

* Additional depression item.

* p < .05. ** p < .01.
nondepressed children, the extended 21-item scale did no better at classifying depressed and nondepressed children than the original scale. Using an optimal cutting score of equal to or greater than 17, sensitivity was 51% (20/39), homogeneity was 91% (20/22), specificity was 95% (41/43), and overall rate of correct classifications was 74% (61/82). In sum, these data indicate that DSRS scores can be employed to identify groups of depressed children, with relatively few misclassifications of nondepressed children as depressed. However, a considerable number of depressed children score low on the DSRS and thus will tend to be misclassified as nondepressed.

Concurrent Validity

The concurrent validity of the DSRS was examined by assessing the extent to which DSRS scores correlated with other ratings of depression. Support for the concurrent validity of the DSRS was provided by the high and significant correlations between the CDI and the original 18-item DSRS ($r = .81, p < .001$) and the modified 21-item DSRS ($r = .82, p < .001$). As might be expected from these high correlations, the effectiveness of the CDI for classifying depressed and nondepressed children was comparable to that of the DSRS. Using an optimal CDI cutting score of greater than or equal to 15, sensitivity was 54% (7/13), homogeneity was 87.5% (7/8), specificity was 91% (10/11), and overall rate of correct classifications was 71% (17/24). Consistent with other findings indicating reduced correlations between depression ratings when they are completed by different raters (Kazdin, Esvedt-Dawson, Unis, & Rancurello, 1983), lower correlations were found between ward ratings of depression on the CDRS and both the original DSRS ($r = .19, ns$) and the modified DSRS ($r = .19, ns$). Even though the correlations between the DSRS and CDRS scores were low, it is important to note that CDRS scores provided some discrimination of depressed and nondepressed children. This was indicated by the marginally significant main effect for diagnosis, $F(1, 42) = 3.07, p < .09$, yielded by a $2 \times 2 \times 2$ (Diagnosis $\times$ Sex $\times$ Age) ANOVA performed on the CDRS scores. Thus, the CDRS likely assesses components of the variance between depressed and nondepressed children that are different from those assessed by the DSRS.

Internal Consistency

Evidence of the internal consistency of the DSRS is provided by the coefficient alphas
for both the original 18-item DSRS (alpha = .73, p < .01) and for the 21-item version of the scale (alpha = .76, p < .01). Additionally, the Spearman–Brown split-half reliability coefficients were .61 and .67, respectively, for the 18- and 21-item scales, further attesting to the internal consistency of both the original and modified versions of the scale. These coefficients are somewhat lower than the split-half reliability coefficient of .86 reported for the derivation sample (Birleson, 1981). Item-total score correlations were in the moderate to high range and are statistically significant for 16 of the 18 items in the original scale and for 19 of the 21 items in our modified scale. The 2 items that failed to correlate significantly with the total score were “I enjoy my food” and “I like talking with my family.”

Discussion

Major findings of the present study were as follows: (a) Total scores on both the original 18-item version and our 21-item version of the DSRS significantly discriminated between children with depressive and nondepressive disorders; (b) DSRS cutting scores could be generated that produced overall rates of correct classifications ranging from 66% to 77% with very few false positive errors (nondepressed children classified as depressed); (c) DSRS scores correlated significantly with the CDI, another self-report measure of depression; and (d) low and nonsignificant correlations were obtained between DSRS scores and ward ratings of depression on the CDRS even though marginally significant differences were found between the CDRS scores of depressed and nondepressed children. These findings support the criterion and concurrent validity of the DSRS. However, these findings also highlight the problems with using self-report scales to identify depressed and nondepressed children. Although cutting scores were generated that yielded groups of depressed children with very few false positive errors, a number of depressed children were falsely classified as nondepressed. These findings underscore the need to exercise caution in drawing inferences regarding depressive disorders on the basis of studies that have relied exclusively on children’s self-report ratings to identify depressed and nondepressed groups.

A possible explanation for the relatively high false negative rate found for the DSRS is that the depressed children who were falsely classified as nondepressed had less severe depressive disorders and consequently admitted to fewer depressive symptoms. Examination of the children in this false negative group, however, does not support this explanation. Indeed, 4 of the most severely depressed children in the sample, all of whom met DSM-III criteria for major depression, had low scores on the DSRS. A more plausible interpretation of these data, therefore, is that there are subgroups of depressed children who will tend to deny their depressive symptoms. Interestingly, when compared with the male:female ratio in the depressed group, a disproportionate number of depressed boys scored below the cutting score on the 18-item DSRS (Fisher exact p = .04). This suggests that more depressed boys than depressed girls may be likely to deny their depressive symptoms.

It is interesting to note that these findings are contrary to results of studies with adults (Hammen, 1980; Lewinsohn & Teri, 1982; Myers & Weissman, 1980). Although relatively high rates of nondepressed adults tend to score high on self-report depression ratings, relatively few clinically depressed adults score low on self-report measures of depression. Future research is needed to elucidate the factors contributing to these different patterns for children and adults, as well as to further clarify the nature and characteristics of the subgroups of depressed children who tend to deny their symptoms.

The finding that ward staff ratings on the CDRS marginally discriminated between depressed and nondepressed children but shared little common variance with DSRS scores is noteworthy. This finding is consistent with other research showing generally low correlations between the ratings of children and their parents on the same or related measures (Kazdin, French, Unis, & Esveldt-Dawson, 1983; Leon, Kendall, & Garber, 1980; Weissman, Orvaschel, & Padian, 1980). Such findings suggest that optimal clinical and research procedures for identifying depressed and

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2 Although the sex difference was in the same direction for the 21-item DSRS, a statistically significant relation was not obtained (Fisher exact p = .12).
nondepressed children will involve the combined use of measures completed by different informants.

Some limitations of this study merit note. First, the present results do not validate DSM-III diagnoses of depression. Rather, these data demonstrate the correspondence between children's self-report ratings of depression and clinical diagnoses. Because children's self-reports on the K-SADS-E were considered in deriving clinical diagnoses, some correspondence between these measures would be expected. However, the present results provide some standards that can be used for interpreting children's scores on the DSRS. Second, it should be noted that the present research was conducted with psychiatric inpatient children who were likely to be more distressed than outpatient or community samples. Because these results may not generalize to less severely disturbed children, additional research is required in order to determine the utility of the DSRS with less disturbed children. A third limitation of the DSRS is that it assesses depression but does not assess other dimensions of symptomatology. Consequently, children obtaining similar scores on the DSRS could and did differ substantially on measures of other symptom dimensions such as conduct problems.

Despite these qualifications, the present study demonstrates that the DSRS can provide a useful tool for assessing childhood depression. Interestingly, the distribution of scores in our sample was remarkably similar to that reported by Birleson (1981) for the original derivation sample, with the same cutting score optimizing classification of depressed and nondepressed children in both samples. Although the present results suggest that the DSRS and CDI are comparable in their effectiveness for identifying depressed and nondepressed children, the format of the DSRS appears to place fewer demands on the cognitive capabilities of the child than that of the CDI, which requires the child to consider three sentences prior to responding to an item. Thus, the DSRS may prove to be a particularly acceptable measure for young or cognitively impaired children. Future research is required in order to further determine the relative advantages and disadvantages of the DSRS and CDI for different populations.

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**Special Call for Papers on the Consulting and Clinical Psychology of Aging**

The *Psychology and Aging* journal is gearing up for its first year of publication in 1986. Manuscripts have been received in the editorial office for a number of months, but more than 50% of the original submissions have been experimental. The Editor, M. Powell Lawton, and the Associate Editor, Donald H. Kauler, wish to emphasize that *Psychology and Aging* will be a broad-ranging publication, and manuscripts from all areas of psychology are desired.

Papers on consulting and clinical issues related to aging are encouraged. As the proposed editorial policy statement outlines:

*Psychology and Aging* publishes original articles on adult development and aging. Such original articles include reports of research, which may be applied, biobehavioral, clinical, educational, experimental (laboratory, field, or naturalistic studies), methodological, or psychosocial. While the emphasis is on original research investigations, occasional theoretical analyses of research issues, practical clinical problems, or policy may appear, as well as critical reviews of a content area in adult development and aging. Clinical case studies that have theoretical significance are also appropriate. Brief reports are acceptable with the author's agreement not to submit a full report to another journal; a 75-100 word abstract plus 48-space lines of text and references constitute absolute limitations on space for such brief reports.

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