Center for Epidemiologic Studies Depression Scale (CES-D)
Radloff, L. S.
1977

Description of Measure

Purpose
To measure self-reported symptoms associated with depression that have been experienced in the past week (Hunter et al, 2003).

Conceptual Organization
The CES-D includes 20 items comprising six scales that reflect the major dimensions of depression: depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance (Hunter et al, 2003).

Item Origin/Selection Process
The items were selected from a pool of items from previously validated depression scales (e.g., Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; Gardner, 1968; Raskin, Schulterbrandt, Reatig, & McKeon, 1969; Zung, 1965). The main components of depressive symptomatology (depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance) were identified from clinical literature and factor analyses (Hunter et al, 2003).

Materials
LONGSCAN utilized an A-CASI delivery system for the Age 16 interview. More typically, the measure is self or interviewer administered using paper and pencil forms.

Time Required
5 minutes

Administration Method
A-CASI

Training
Minimal.

Scoring

Score Types
Response categories indicate the frequency of occurrence of each item, and are scored on a 4-point scale ranging from 0 (rarely or none of the time) to 3 (most or all of the time). Scores for items 4, 8, 12, and 16 are reversed before summing all items to yield a total score. Total scores can range from 0 to 60 (Radloff, 1977).

Score Interpretation
Higher scale, and item-level scores with the exception of the reverse scored items, indicate more depressive symptoms. A score of 16 or higher has been used extensively as the cut-off point for high depressive symptoms on this scale (Radloff, 1977). However, false positives on the order of 15% to 20% have resulted from use of this cut-off point, leading some researchers to suggest that
a higher cut-off point be used (Boyd, Weissman, Thompson, & Myers, 1982; Zich, Attkisson, & Greenfield, 1990) (Hunter et al, 2003).

Psychometric Support

Reliability
The CES-D has been shown to be a reliable measure for assessing the number, types, and duration of depressive symptoms across racial, gender, and age categories (Knight, Williams, McGee & Olaman, 1997; Radloff, 1977; Roberts, Vernon, & Rhoades, 1989). High internal consistency has been reported with Cronbach’s alpha coefficients ranging from .85 to .90 across studies (Radloff, 1977). (Hunter et al, 2003)

Validity
Concurrent validity by clinical and self-report criteria, and substantial evidence of construct validity, have been demonstrated (Radloff, 1977). However, there is evidence that the CES-D, while a useful measure of the level of depressive symptoms, may not be a good tool for screening for clinical depression or major depression (Roberts, Vernon, & Rhoades, 1989). (Hunter et al., 2003)

LONGSCAN Use

Data Points
Pre-Age 4: MW & NW sites only
Ages 4, 6, 12, 14 & 16: all sites

Respondent
Primary maternal caregiver

Mnemonic and Version
DEPA: Pre-age 4, age 4 & 6
DEPB: Ages 12, 14, & 16 item-level data
CESS: Age 12, 14, and 16 scored data

Rationale
Depression is a well-established risk factor for compromised parenting (Downey & Coyne, 1990). The CES-D was selected for the LONGSCAN study because it is one of the best known and most widely used measures of depressive symptomatology in the general population, with documented reliability and validity in the published literature (Hunter et al, 2003).

Administration and Scoring Notes
The CES-D was administered to primary caregivers in the LONGSCAN consortium starting with the Age 12 interview using an audio-computer administered self-interview (A-CASI). Prior administration utilized interviewer-administered paper and pencil format. A study comparing the administration of the CES-D by conventional versus the computerized method found no significant differences between reported means and variances of the two methods. Equivalent form reliability and internal consistency of the two CES-D forms were both very high (Gonzalez, Spiteri, & Knowlton, 1995).
Results

Descriptive Statistics
For descriptive statistics of the Ages 4 -14 Center for Epidemiologic Studies Depression Scale, please refer to the 1st, 2nd, and 3rd volumes of the measures manuals (Hunter et al., 2003 & 2003; Knight, 2008). Table 1 provides descriptive statistics for the Age 16 CES-D total scores, including the percent of caregivers scoring 16 or higher, and mean total scores. 30% of caregivers in the LONGSCAN sample scored 16 or above, reflecting rates similar to those reported at Ages 12-14.

Table 1. Descriptive Statistics for Age 16 CES-D Total Scores

<table>
<thead>
<tr>
<th>Age 16 CES-D Total</th>
<th>N</th>
<th>n (%) &gt;/=16</th>
<th>M  (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>773</td>
<td>235 (30.4)</td>
<td>12.0 (10.2)</td>
</tr>
<tr>
<td>Caregiver Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>266</td>
<td>88 (11.4)</td>
<td>12.5 (10.9)</td>
</tr>
<tr>
<td>African American</td>
<td>422</td>
<td>126 (16.4)</td>
<td>11.9 (9.9)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>53</td>
<td>12 (1.6)</td>
<td>11.4 (8.7)</td>
</tr>
<tr>
<td>Other</td>
<td>42</td>
<td>8 (1.0)</td>
<td>11.4 (9.8)</td>
</tr>
<tr>
<td>Study Site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EA</td>
<td>160</td>
<td>39 (5.0)</td>
<td>10.8 (8.9)</td>
</tr>
<tr>
<td>MW</td>
<td>120</td>
<td>43 (5.6)</td>
<td>13.8 (10.9)</td>
</tr>
<tr>
<td>SO</td>
<td>132</td>
<td>49 (6.3)</td>
<td>13.2 (11.0)</td>
</tr>
<tr>
<td>SW</td>
<td>189</td>
<td>46 (6.0)</td>
<td>10.5 (10.0)</td>
</tr>
<tr>
<td>NW</td>
<td>186</td>
<td>58 (7.5)</td>
<td>12.7 (10.0)</td>
</tr>
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</table>

Source. Based on data received at the Coordinating Center through July’09.

Reliability
Consistent with previous findings by other researchers (see section on psychometric support), we observed evidence of high internal consistency for the CES-D (age 16 α = .90).

References and Bibliography


Behavior, 11, 85-93.


