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To cite this article: Nancy S. Hogan, Lee A. Schmidt, Katianne M. Howard Sharp, Maru Barrera, Bruce E. Compas, Betty Davies, Diane L. Fairclough, Mary Jo Gilmer, Kathryn Vannatta & Cynthia A. Gerhardt (2019): Development and testing of the Hogan Inventory of Bereavement short form for children and adolescents, Death Studies, DOI: 10.1080/07481187.2019.1627034

To link to this article: https://doi.org/10.1080/07481187.2019.1627034

Published online: 05 Jul 2019.
Development and testing of the Hogan Inventory of Bereavement short form for children and adolescents

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\textbf{ABSTRACT}

To reduce response burden for bereaved children and adolescents, we provide data on the development and psychometric testing of a short form of the Hogan Sibling Inventory of Bereavement (HSIB). The resulting measure of grief symptoms and personal growth was named the Hogan Inventory of Bereavement – Short Form (Children and Adolescents; HIB-SF-CA). Psychometric properties were evaluated in a sample of 86 bereaved siblings. Instrument development and validation research design methods were used. Evidence of strong reliability and convergent validity indicates that the 21-item HIB-SF-CA is comparable to the original 46-item HSIB in measuring grief and personal growth in this population.

The Hogan Sibling Inventory of Bereavement (HSIB) is the only psychometrically-established instrument available to examine the child and adolescent bereavement process (Neimeyer, Hogan, & Laurie, 2008). However, the length of the 46-item instrument hampers its usefulness and may partially account for the choice of alternative instruments to measure grief and personal growth in child and adolescent bereavement research. Neimeyer and Hogan (2001) critiqued the psychometric evidence of currently used grief measures and identified that “…most investigators of bereavement rely on generic measures of psychiatric symptomatology as opposed to scales tailored to the assessment of grief per se” (p. 91). Thus, the development of a brief, psychometrically validated version of the HSIB is needed to permit researchers to measure the bereavement process of this population more efficiently and directly.

Child and adolescent bereavement research has primarily documented the negative impact of loss on depression (Hogan & Greenfield, 1991; Weller, Weller, Fristad, & Bowes, 1991); anxiety, including post-traumatic stress disorder (PTSD; Eth & Pynoos, 1994; McClatchey, Volk, & Palardy, 2009); decreased self-esteem; and difficulty coping (Balk, 1990; Hogan & Greenfield, 1991, 2001). However, little empirical research has been published examining personal growth, a positive outcome of the grief process for children and adolescents. The following review of literature will focus on child and adolescent grief and personal growth as the key concepts measured in the HSIB.

\textbf{Grief}

Shattered assumption theory proposes that traumatic events challenge our belief that we are worthy and that the world is benevolent and meaningful (Janoff-Bulman, 1992). Bereaved children and adolescents’ assumptions about the world are altered as they must cope with the death of a loved while simultaneously coping with normal developmental stressors (Hogan & DeSantis, 1996a, 1996b). Negative outcomes from 127 bereaved adolescent siblings revealed that vulnerable, moderate and resilient profiles of grief intensity were associated with negative and positive self-concept outcomes (Hogan & Greenfield, 1991). Adolescents with high-intensity grief levels had significantly lower
self-concept, most noticeably on the emotional tone (depression), psychological self, and psychopathology subscales. Depressive symptoms, such as sadness, sullenness, and crying are well documented (Alderfer et al. 2009; Balk, 1990; Davies, 1999; McGown & Davies, 1995; Weller et al., 1991). Additional negative outcomes of coping with catastrophic loss include loss of appetite, anhedonia (Kranzler, Shaffer, Wasserman, & Davies, 1990), difficulty sleeping and nightmares (Eilegård, Steinbeck, Nyberg, & Kreicbergs, 2013; Hogan & DeSantis, 1996a), and lowered self-esteem (Eilegård et al., 2013, Hogan & Greenfield, 1991). Bereaved children and adolescents often experience intrusive feelings, such as fear and anxiety (Hogan & DeSantis, 1996b; Silverman, Nickman, & Worden, 1992; Weller et al., 1991) that can include being afraid that another family member could die (Davies, 1999; Sanchez, Fristad, Weller, Weller, & Moye, 1994; Silverman et al., 1992). Blame and anger can arise related to the sense of injustice that their loved one died while less worthy people lived. They may also assign blame to themselves or others based on circumstances surrounding the death including depression, suicidality, and changes in relationships (Kranzler et al., 1990; Silverman et al., 1992; Weller et al., 1991). Other painful emotional reactions include the bereaved sibling feeling shame, guilt, regret, participation in at-risk behaviors related to their perception that they had not been a good enough brother or sister to the deceased sibling or feeling survivor guilt, whereby they were haunted by the question of why they were spared while their sibling died (Andriessen et al., 2018; Davies, 1999; Hogan & DeSantis, 1994). Teachers have reported that bereaved children and adolescents experience difficulty concentrating, resulting in declining grades, absenteeism, and increased dropout rates (Barrera, Alam, D’Agostino, Nicholas, Schneiderman, 2013; Dyregrov, 2009).

**Personal growth**

The shattered assumption proposition that the death of a loved one irrevocably changes one’s life and yet it can also be a catalyst for personal growth for adult survivors has been supported (Hogan & Schmidt, 2002, 2016b; Hogan, Schmidt & Coolican, 2014; Tedeschi, Park & Calhoun, 1998). Hogan and Greenfield (1991) identified that positive changes can also occur for bereaved adolescents as they learn to cope with the reality that the old “normal” is irrevocably lost. They may remain mired in grief, whereas other bereaved adolescents in time learn to cope with the pain of separation and create a new life that has meaning and purpose. Findings showed that resilient survivors in the low grief intensity level group scored above the mean of 10 on 11 self-image subscales including body and self-image, social and family relationships, mastery of the external world, and superior adjustment. Self-report suggests that such bereaved adolescents believe that, as a result of their sibling’s death, they have grown personally, are more confident and more competent to deal with problems in life, and that they have grown by becoming more empathic, caring, tolerant, and understanding of others (Hogan & DeSantis, 1996a, 1996b). Lasting positive changes encompassed perceptions of self, relationship to others, and life, such as having an increased appreciation of the fragility and impermanence of life, a stronger sense of the need to formulate aspirations for the future, set priorities, appreciate each day, and an increased recognition of the need for self-care (Andriessen et al., 2018). Akard et al. (2018) reported that bereaved siblings were significantly more mature and open to others over the first two years of bereavement and that, as a result of their sibling’s death, they valued others more, had increased resilience, and were more responsible.

**Coping and social support**

Research has shown the important role that coping and social support play in response to the death of a loved one. Coping that relies on primary control (e.g., problem solving, emotional expression) and secondary control (e.g., cognitive restructuring, acceptance) strategies tend to be more adaptive and associated with better outcomes in children while disengagement strategies (e.g., avoidance, wishful thinking) have been associated with more difficulties (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Compas, Jaser, Dunn, & Rodriguez, 2012). A lack of social support is also associated with more intense levels of grief (Hogan & Greenfield, 1991; Palmer, Saviet, & Tourish, 2016) such that bereaved children and adolescents can feel lonely and socially isolated by peers, as well as experience low self-worth and low maturity (Davies, 1999; Eilegård et al., 2013; Fanos & Nickerson, 1991; Hogan & Greenfield, 1991). Adolescents reported that parental discord and insensitive peers who had admonished them for grieving too much and too long caused them to feel demeaned (Hogan & DeSantis, 1994). In contrast, peer support groups were viewed as helpful in making bereaved siblings feel less alone (Hogan & DeSantis, 1994). Children were helped by moving on
with their lives, talking about the deceased child, and having supportive friends (Barrera et al. 2013).

**Development and testing of the HSIB**

HSIB items were derived from bereaved children and adolescents’ personal descriptions of their grieving the death of a brother or sister. The 46-item HSIB consists of two subscales determined through exploratory factor analysis (Hogan & Greenfield, 1991). The first factor, Grief, consists of 24 items that measure reactions such as hopelessness, sadness, survivor guilt, fear, sleep difficulties, and trouble paying attention to schoolwork. The 22-item Personal Growth subscale contains items that tap the bereaved adolescents’ increased sense of being kinder, more tolerant, more aware of others feelings, and having grown up faster than friends. The HSIB has demonstrated strong psychometric properties, including internal consistency and validity (Hogan & DeSantis, 1996a; Hogan & Greenfield, 1991; Neimeyer et al., 2008). The measure has demonstrated convergent validity in the form of associations with similar variables in the expected direction, such as high levels of grief correlated with high levels of depression, low levels of impulse control, poorer body and self-image, and lower mastery of the external world, and low levels of self-esteem (Hogan & Greenfield, 1991).

To reduce response burden for bereaved children and adolescents, we present data using the HSIB that allowed for the empirical reduction of items and assessment of the psychometric properties of a short form of the HSIB. In assessing the psychometric properties of the short form of the HSIB, we hypothesized the following, based on the research and theoretical literature: (a) Grief would not be related to Personal Growth; (b) Grief would be positively related to depression and post-traumatic stress symptoms (i.e., intrusiveness, avoidance, and hyperarousal) and disengagement coping; (c) Grief would be negatively related to self-worth, primary control coping, and secondary control coping; (d) Personal Growth would be positively related to primary control coping and secondary control coping, global self-worth, and social support; and (e) Personal Growth would be negatively related to depression and disengagement coping.

**Method**

**Procedures**

The data used to develop the HIB-SF-CA items and assess the psychometric evidence for the shortened measure were obtained from a multisite, longitudinal study of bereaved families following the death of a child from cancer. Institutional Review Board approval was obtained at each of the three participating children’s hospitals in the United States and Canada. Families were sent a letter of introduction from the child’s attending physician and recruited via phone 3–12 months after their child died. Data collection in the larger study involved visits to bereaved siblings’ schools and homes on average in the first year after the death, followed by another home visit in the second-year post-death (Foster et al., 2009; 2011; Gerhardt et al., 2012; Thompson et al., 2011). This paper includes cross-sectional data collected from families at the first home visit. Informed consent was obtained from each participating parent at the beginning of the visit, and assent was obtained from participating children. Research assistants administered a series of questionnaires and conducted semi-structured interviews separately with each participating family member.

**Participants**

At recruitment, eligible families: (a) had a child die from cancer in the previous 3–12 months; (b) had a bereaved sibling 8–17 years old, (c) were fluent in English, and (d) lived within 100 miles of the hospital. Adopted, half-siblings, and step-siblings were eligible if the parent reported that regular ongoing contact had occurred between the sibling and the child who had died. One eligible sibling was randomly selected to participate from each family. Eighty-seven bereaved families participated in the home visit.

The sample of bereaved siblings was approximately half female (56%; n = 49), primarily Caucasian (n = 76; 64%), and an average of 12.21 years of age (SD = 0.58). Family income varied (17.0% earned $25,000 or less; 26.1% earned $25,001–$50,000; 26.1% earned $50,001–$75,000; 12.5% earned $75,001–$100,000; and 14.8% earned over $100,000, 3.4% missing). Mothers had an average of 13.55 years (SD = 1.67) of education, and fathers an average of 14.09 years (SD = 1.74). Deceased children averaged 11.49 years of age (SD = 3.48) at the time of death, with approximately 31.78 months (SD = 28.31) from time of cancer diagnosis until death. Approximately half (46; 53%) of deceased children were male, and 84% (73) were full siblings. Data were collected on average 11.55 months (SD = 3.48) after the death. Family religion was reported as 29% Protestant, 21% Catholic, 1% Jewish, 36% Other, and 12% None.
Measures for assessing construct validity of the HSB-SF-CA subscales

Children’s Depression Inventory (CDI)
The CDI (Kovacs, 1985) is a widely used 27-item self-report inventory that measures cognitive, affective, and behavioral symptoms of depression in children and adolescents aged 7–17 years. Strong reliability and validity have been documented for a Total depressive symptom score summing all items (Al-Balhan, 2006; Doerfler, Felnner, Rawlison, Raley, & Evans, 1988; Giannakopoulou, Kazantzi, Dimitrakaki, Tsiantis, Gerasimos, & Tountas, 2009; Pearce, Little, & Perez, 2003). Internal consistency in the current study was good ($\alpha = .87$).

Impact of Event Scale-Revised (IES-R)
The 17-item IES-R (Weiss & Marmar, 1997) is widely used to measure post-traumatic stress symptoms (PTSS), such as intrusive thoughts and images, avoidance of thoughts and reminders of a traumatic event, and hyperarousal. Internal consistency in the current study was good ($\alpha = .82–.88$).

Self-Perception Profile for Children (SPPC)
The SPPC (Harter, 1988) is a measure of children’s self-perception of competencies in six domains: Scholastic Competence, Social Acceptance, Athletic Competence, Physical Appearance, Behavioral Conduct, and Global Self-worth. The SPPC subscales conform to the theoretically-derived structure proposed by Harter (Shevlin, Adamson, & Collins, 2003). The current study used a six-item subscale of Global Self Worth. Internal consistency was adequate in the current study ($\alpha = .73$).

Inventory of Social Support (ISS)
The ISS is a 5-item self-report questionnaire developed with data from bereaved adolescents ($n = 187$) and adults ($n = 207$). The Total of ISS items represent the degree to which the bereft perceives that there is at least one person who will take the time to listen non-judgmentally to them while they openly and honestly express their thoughts and feelings about grief. Internal consistency for this scale was $\alpha = .78$ in a sample of bereaved adults (Hogan & Schmidt, 2002; Hogan & Schmidt, 2016a) and $\alpha = .74$ in the present study.

Responses to Stress Questionnaire (RSQ)
The RSQ (Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman, 2000) is a 57-item self-report measure of voluntary and involuntary responses to stress. The instrument yields three factors representing volitional coping responses: (a) Primary Control Coping (i.e., problem solving, emotional expression, emotional modulation), (b) Secondary Control Coping (i.e., cognitive restructuring, positive thinking, acceptance, distraction), and (c) Disengagement Coping (i.e., avoidance, denial, wishful thinking). Reliability and internal consistency ranges from .67 to .92 (Connor-Smith et al., 2000). Internal consistency for this measure was strong ($\alpha = .82–.83$). Given the complexity of the RSQ, only children 10 years or older completed this measure ($n = 73$).

Statistical analysis plan

To determine the items to retain for a briefer HSIB instrument, exploratory factor analysis was conducted using principal axis factoring with orthogonal and oblique rotations. Criteria to determine the number of factors to retain included: parallel analysis plots, scree plot, and interpretability of factors. Criteria to retain items included: significant factor loading of $\geq .40$, small or non-existent cross-loading and conceptual consistency with other items in the factor.

The scree plot and parallel analysis suggested three factors, which were used as a starting point in the iterative process to reduce the HSIB to a shorter form. In the three-factor structure, which explained 44.5% of the variance, only two items clearly loaded on the third factor and there was conceptual overlap with these items and other factors. These two items were retained, and a two-factor solution was generated. A two-factor solution produced a clearer conceptual structure and accounted for 50.8% of the variance. Item deletion, based on conceptual strength of an item to a factor, as well as the factor loading values, resulted in a 21-item measure, consisting of two factors: Grief ($\alpha = .87, 10$ items) and Personal Growth ($\alpha = .90, 11$ items) to support construct validity.

The Grief factor items measure negative emotions including sadness, hopelessness, sleep disturbance, fear, and difficulty with schoolwork. Item means ranged from 1.71 to 2.30, with standard deviations ranging from 1.01 to 1.42 (Table 1). The Personal Growth factor items each contain words showing growth in both personal and interpersonal spheres. At the intrapersonal level, the item content includes a sense of becoming a better person, having a better outlook on life, growing up faster than friends, and becoming stronger because of the grief with which they had had to deal. On the interpersonal level, they sensed that they had become kinder, more aware of
other’s feelings, more tolerant, and more understanding of others. Item means ranged from 2.86-3.64, with standard deviations ranging from 1.19 to 1.38 (see Table 1). The HIB-SF-CA instrument, and Grief and Personal Growth factor items, are in the Appendix as well as Table 1 showing factor loading details.

**Results**

**Convergent and divergent validity of the grief factor**

The HIB-SF-CA subscales correlated with scales/subscales from other measures in the expected directions. The Grief factor was moderately correlated with total depression symptoms from the CDI, \( r(86) = .69, p < .001 \). The Grief factor was also moderately correlated with Intrusiveness, \( r(86) = .65, p < .001 \), Avoidance, \( r(86) = .50, p < .001 \), and Hyperarousal, \( r(86) = .75, p < .001 \). As hypothesized, Grief was negatively correlated with Global Self-Worth, \( r(86) = -.47, p < .001 \), Primary Control Coping, which includes behaviors such as problem solving, emotional expression, and emotional modulation, \( r(72) = -.42, p < .001 \), and Secondary Control Coping, which includes behaviors such as cognitive restructuring, positive thinking, acceptance and distraction, \( r(72) = -.68, p < .001 \).

**Convergent and divergent validity of the personal growth factor**

Convergent validity was further demonstrated by a positive correlation between Personal Growth and

**Table 1. Factor loading (orthogonal rotation) for Hogan Inventory of Bereavement (n = 86).**

<table>
<thead>
<tr>
<th>Items loading</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grief</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. I believe</td>
<td>1.85</td>
<td>1.01</td>
<td>.62</td>
<td></td>
</tr>
<tr>
<td>6. I have</td>
<td>2.26</td>
<td>1.33</td>
<td>.44</td>
<td></td>
</tr>
<tr>
<td>12. I get a</td>
<td>1.71</td>
<td>1.14</td>
<td>.70</td>
<td></td>
</tr>
<tr>
<td>22. I get</td>
<td>1.76</td>
<td>1.17</td>
<td>.66</td>
<td></td>
</tr>
<tr>
<td>30. I</td>
<td>2.30</td>
<td>1.32</td>
<td>.79</td>
<td></td>
</tr>
<tr>
<td>34. I don’t</td>
<td>2.01</td>
<td>1.19</td>
<td>.65</td>
<td></td>
</tr>
<tr>
<td>41. I don’t</td>
<td>1.71</td>
<td>1.09</td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td>44. I have</td>
<td>2.27</td>
<td>1.42</td>
<td>.51</td>
<td></td>
</tr>
<tr>
<td>45. I do not</td>
<td>1.81</td>
<td>1.18</td>
<td>.58</td>
<td></td>
</tr>
<tr>
<td>45. I do not</td>
<td>2.01</td>
<td>1.37</td>
<td>.69</td>
<td></td>
</tr>
<tr>
<td>Personal Growth</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I believe I am a better person</td>
<td>2.88</td>
<td>1.36</td>
<td>.64</td>
<td></td>
</tr>
<tr>
<td>3. I have grown up faster than my friends</td>
<td>3.19</td>
<td>1.35</td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td>5. I believe I am stronger because of the grief.</td>
<td>3.23</td>
<td>1.38</td>
<td>.73</td>
<td></td>
</tr>
<tr>
<td>7. I have learned to deal better with my problems</td>
<td>3.45</td>
<td>1.19</td>
<td>.73</td>
<td></td>
</tr>
<tr>
<td>11. I can put up with others a lot better</td>
<td>2.86</td>
<td>1.34</td>
<td>.76</td>
<td></td>
</tr>
<tr>
<td>17. I have a better outlook on life</td>
<td>3.29</td>
<td>1.30</td>
<td>.78</td>
<td></td>
</tr>
<tr>
<td>19. I am a more caring and nice to others</td>
<td>3.53</td>
<td>1.23</td>
<td>.63</td>
<td></td>
</tr>
<tr>
<td>21. I have learned to deal better with my life</td>
<td>3.37</td>
<td>1.27</td>
<td>.69</td>
<td></td>
</tr>
<tr>
<td>27. I try to be kinder to other people</td>
<td>3.64</td>
<td>1.19</td>
<td>.70</td>
<td></td>
</tr>
<tr>
<td>33. I am more aware of others’ feelings</td>
<td>3.48</td>
<td>1.15</td>
<td>.63</td>
<td></td>
</tr>
<tr>
<td>37. I am more understanding of others</td>
<td>3.56</td>
<td>1.19</td>
<td>.72</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2. Inter-correlations among the HIB-SF-CA Subscales and Study Variables.**

<table>
<thead>
<tr>
<th>Measures</th>
<th>Mean (SD)</th>
<th>HIB-SF-CA Grief</th>
<th>HSIB-SF-CA Personal Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIB-SF-CA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grief</td>
<td>19.69 (8.45)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Growth</td>
<td>36.49 (9.98)</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>CDI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Depressive Symptoms</td>
<td>8.25 (7.11)</td>
<td>.69**</td>
<td>-.22*</td>
</tr>
<tr>
<td>IES-R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrusivity</td>
<td>11.14 (6.55)</td>
<td>.63**</td>
<td>.14</td>
</tr>
<tr>
<td>IES-R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoidance</td>
<td>12.52 (7.62)</td>
<td>.50**</td>
<td>.12</td>
</tr>
<tr>
<td>IES-R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperarousal</td>
<td>7.59 (7.06)</td>
<td>.75**</td>
<td>.04</td>
</tr>
<tr>
<td>SPPC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global Self-Worth</td>
<td>19.65 (3.20)</td>
<td>-.47**</td>
<td>.24**</td>
</tr>
<tr>
<td>RSQ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary Control Coping</td>
<td>.17 (.03)</td>
<td>-.42**</td>
<td>.33**</td>
</tr>
<tr>
<td>RSQ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary Control Coping</td>
<td>.25 (.05)</td>
<td>-.68**</td>
<td>.37**</td>
</tr>
<tr>
<td>RSQ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disengagement Coping</td>
<td>.15 (.03)</td>
<td>.02</td>
<td>-.20</td>
</tr>
<tr>
<td>ISS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Social Support</td>
<td>17.54 (4.71)</td>
<td>.00</td>
<td>.55***</td>
</tr>
</tbody>
</table>

HIB-SF-CA: Hogan Inventory of Bereavement-Short Form-Children and Adolescents; CDI: Children’s Depression Inventory; IES-R: Impact of Events Scale-Revised; SPPC: Self-Perception Profile for Children; RSQ: Response to Stress Questionnaire; ISS: Inventory of Social Support. *p < .01; **p < .001; ***p < .0001.
Primary Control Coping, $r (72) = .33, p > .001$ and Secondary Control Coping, $r (72) = .38, p = .001$ (see Table 2). Small correlations were also noted between Growth and global self-worth, $r (86) = .23, p > .01$, with high correlations with social support, $r (82) = .55, p > .001$. Correlations with indicators of depression, $r (86) = -.22, p = .01$ were in the expected direction but were small and non-significant for PTSS. Thus, findings provide evidence of convergent validity and some evidence of divergent validity for the Personal Growth factor. The independence of the Grief and Personal Growth factors is shown in the non-significant correlation between these scores in the shortened version of the measure, $r (86) = -.05, p = .67$, indicating that the two factors are distinctly different constructs and that they are conceptually independent.

**Comparing reliability of the HSIB and the HIB-SF-CA**

Internal consistency for the 21-item HIB-SF-CA was strong and comparable to internal consistency in the 46-item HSIB for this sample ($\alpha = .91$ for both subscales).

**Discussion**

Studies using standardized adult grief instruments have allowed us to differentiate the grief experience by the cause of the death (e.g., illness, accident, suicide and homicide) to guide the development of therapeutic interventions (Hogan, Greenfield, & Schmidt, 2001). Despite the abundance of published research describing the impact of bereavement on adults, little research has been devoted to generating a similar knowledge base for understanding the child and adolescent grief and personal growth experience. A lack of psychometrically sound measures to efficiently assess their bereavement experience has been a major barrier. Thus, we successfully generated a comparable, 21-item version of the HSIB to reduce the response burden inherent in asking bereaved children and adolescents to complete the original 46-item measure.

The reliability assessment of the HIB-SF-CA Grief and Personal Growth factors demonstrated strong internal consistency with Cronbach’s alpha coefficients of .91 for both measures. Convergent and divergent validity for the Grief factors showed it was correlated in the expected directions with the depression, intrusivity, avoidance, hyperarousal, self-worth, and primary and secondary control coping. Depression has been well documented in child and adolescent bereavement studies (Balk, 1990; Davies, 1999; Weller et al., 1991). Studies show that children and adolescents are often preoccupied with disturbing intrusive thoughts and feelings including anxiety and post-traumatic stress (Eth & Pynoos, 1994; McClatchey et al., 2009), guilt and survivor guilt (Davies, 1999; Hogan & DeSantis, 1996a); shame, blame, regrets (Hogan & DeSantis, 1994), fear for the safety of other family members (Sanchez et al., 1994; Silverman et al., 1992), and anger and irritability (Kranzler et al., 1990; Silverman et al., 1992; Weller et al., 1991).

Divergent validity for the Grief factor was demonstrated by a negative correlation with global self-worth. This association is congruent with published findings that grief and self-image are negatively correlated (Eilegård et al., 2013; Hogan & Greenfield, 1991). The Grief subscale was also negatively correlated with positive coping strategies, which are commonly linked to adaptive outcomes among children and adolescents exposed to stress (Compas et al., 2012).

Convergent validity for Personal Growth was demonstrated by correlations with primary and secondary control coping. These types of coping strategies are often associated with more adaptive functioning among children and adolescents exposed to stress (Compas et al., 2001; Compas et al., 2012). Furthermore, secondary control strategies, such as cognitive restructuring and acceptance, may be particularly effective in response to uncontrollable events such as the death of a loved one (Compas, 2009).

Convergent validity for the Personal Growth subscales was also shown by the correlation with social support. Research has documented that social support is an important protective resource for adolescents who are distressed (DuBois, Felner, Brand, Adan, & Evans, 1992; Harter, 1999; Hogan & DeSantis, 1994). Further, the linkage between personal growth and social support was identified in a study of bereaved adults to test pathways from grief to personal growth (Hogan & Schmidt, 2002). Divergent validity for the Personal Growth factor was demonstrated by a small negative correlation with depression, a variable associated with hopelessness, whereas the Personal Growth subscale measures more positive adaptation to bereavement.

The Grief and Personal Growth factors were not significantly correlated with each other. This finding is congruent with similar findings from adult bereavement studies showing grief and personal growth variables are discrete (Hogan et al., 2001; Hogan & Schmidt, 2002). The nature of the finding makes
heuristic sense. The Grief factors for both instruments measure personal anxiety, guilt, sadness, and hopelessness in contrast to Personal Growth, which measures empathy, kindness and tolerance for others, and personal competence, confidence, resilience, and optimism indicating that a transformational change has taken place. Despite the long and considerable interest in the measurement of adult bereavement, far less research has been devoted to measuring the grief reactions of children and adolescents. Reviews of existing grief instruments continue to cite the need for more internally consistent and valid measures (Neimeyer et al., 2008; Neimeyer & Hogan, 2001). The data presented provide strong psychometric evidence for the HIB-SF-CA, and findings provide a framework for describing the nomological network for these variables that support the instrument’s construct validity.

Limitations

Study limitations include acknowledgement that the sample was mostly Caucasian and consisted of siblings whose brother or sister died due to cancer. Therefore, the implication of the findings for siblings who died suddenly by accident, homicide, or suicide are unknown. Another limitation relates to the applicability of the shortened instrument to children and adolescents bereaved of loved ones other than siblings. The original 46-item HSIB has been used with children and adolescents bereaved by family members other than siblings, friends, and peers, but the applicability of the shortened instrument for use with persons other than siblings remains to be tested.

The availability of a brief, standardized assessment tool for research with bereaved children and adolescents can facilitate our understanding of the grieving process and factors associated with adaptive/resilient outcomes and maladaptive/vulnerable outcomes. For example, the HIB-SF-CA could be used to determine differential kinds of interventions for bereaved children and adolescents that may be more effective for different kinship deaths and/or deaths from different causes. The design and further testing of such measures is integral to testing contemporary grief theories, evaluating grief interventions, and generating new directions in the field of child and adolescent grief.

Acknowledgments

The authors would like to thank the children and adolescents who generously participated in this study and the support of the Children’s Bereavement Center, Miami, Florida.

Funding

This research was supported by a grant from the National Institutes of Health [R01 CA98217].

References


Appendix

Hogan Inventory of Bereavement—Short Form—Children and Adolescents Instructions, Factors, and Items

This questionnaire consists of a list of thoughts and feelings that you may have had since your loved one died. Please read each statement carefully and choose the number that best describes the way you have been feelings during the past two weeks, including today. Circle the number beside the statement that best describes you. Please do not skip any items.

| 1 | Does not describe me at all |
| 2 | Does not quite describe me |
| 3 | Describes me fairly well |
| 4 | Describes me well |
| 5 | Describes me very well |

Grief

1. I believe I will lose control when I think about him or her
2. I have no control over my sadness
3. I get a sick feeling when I am feeling happy
4. I get all nervous and scared for no reason
5. I worry about everything
6. I don’t care what happens to me
7. I don’t think I will ever be happy again
8. I have trouble paying attention to my schoolwork and other things
9. I am afraid to get close to people
10. I do not sleep well at night

Personal Growth

1. I believe I am a better person
2. I believe I am stronger because of the grief I have had to deal with
3. I have learned to deal better with my problems
4. I have a better outlook on life
5. I am more caring and nice to others
6. I have learned to deal better with my life
7. I try to be kinder to other people
8. I am more aware of others’ feelings
9. I am more understanding of others
10. I have grown up faster than my friends
11. I can put up with others a lot better