

## **Developmental Analysis of Draft DSM 5-TR Criteria for Prolonged Grief Disorder: Report from the Child and Adolescent Bereavement Subgroup**

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### Report Summary:

Following the workshop convened by the American Psychiatric Association DSM 5-TR Steering Committee on June 3, 2019, and after receiving draft criteria proposed by the workshop's Criteria Development Panel, our Child and Adolescent Bereavement team convened to generate a response. Our topics of discussion included (a) evaluating proposed criteria for prolonged grief disorder (PGD), (b) evaluating our available data sets, (c) discussing prospects for collecting additional data, and (d) making formal recommendations to the American Psychiatric Association (APA) to enhance the developmental appropriateness of the proposed PGD criteria. This report summarizes our findings from an analysis of our New York Life Foundation-funded GIFT (Grief-Informed Foundations of Treatment; Co-PIs: Kaplow and Layne) practice research network data set (N = 367) as collected from five different sites across the U.S. We utilized this same data set in a recent paper reporting on the psychometric performance of the PCBD Checklist (Kaplow, Layne, Oosterhoff,....& Pynoos, 2018). This report also includes data (N = 760) from the SAMHSA-funded Trauma and Grief Center at Texas Children's Hospital/Baylor College of Medicine (PI: Kaplow). Our current data allow us to address diagnostic questions for bereaved children and adolescents aged 8-18 years. Addressing these questions for bereaved children aged 7 and under will require further study.

We conclude that:

- Bereaved youth (children age 8-18) report proposed PGD symptoms with sufficient frequency to be considered clinically significant.
- Based on our evidence (as gathered using child-friendly visual prompts), operationally defining "symptom present" as "much of the time" or "most of the time" during the past month is useful in identifying clinically distressed youth.
- Observed age-related differences in symptom endorsement appear to be minor and invite further study.
- We have evidence from a recent open trial and a prior randomized controlled trial that proposed PGD symptoms respond favorably to grief-focused treatment.
- DSM-5-TR PGD symptoms show generally good discrimination between youth who do,

versus do not, meet DSM-5 provisional diagnostic criteria for persistent complex bereavement disorder (PCBD). The sole exception was emotional numbing (PGD Symptom C6), which showed no discrimination between PCBD-positive versus PCBD-negative groups.

- PGD symptoms show evidence of criterion-referenced validity as manifest by significant bivariate correlations with external criterion measures of depression and PTSD symptoms.
- PGD symptoms (including both Criterion B and Criterion C symptoms) show evidence of factorial validity, producing a parsimonious 1-factor solution in an exploratory factor analysis.
- PGD symptoms show evidence of reliability (internal consistency) in the form of high Cronbach's Alphas (B symptom subscale, C symptom subscale, and full scale), significant corrected item-total scale bivariate correlation coefficients, and Scale Alpha if Item Removed indicating that the removal of any one test item reduced scale Alpha.
- Test items measuring our recommended developmentally-linked manifestations (e.g., distress over the circumstances of the death; feeling different from other kids) performed similarly to other PGD symptoms (e.g., loaded a common factor, contributed to scale Alpha, correlated similarly with measures of PTSD and depression). We thus recommend that these developmentally—linked manifestations accompany the PGD symptom descriptions in DSM-5-TR.

The remainder of this report is divided into five sections. These include (1) Our proposed developmental modifications to the workshop panel draft criteria; (2) results of our content mapping of PCBD Checklist test items onto proposed PGD Symptom Criteria B and C; (3) PGD symptom frequency endorsement rates in our practice-research network data set; and (4) results of our evaluation of the clinical utility of PGD symptoms in multiple data sets, and (5) our analysis of test validity and reliability in a set of test items from the PCBD Checklist selected to measure PGD symptoms.

Beginning in Part 3, given the data sets currently available to us, we begin to address a set of nine primary questions. These include:

1. *Do youth report proposed PGD symptoms with sufficient frequency to be considered clinically significant?*
2. *Do there appear to be age-related differences in symptom endorsement among bereaved children and adolescents?*
3. *Do PGD symptoms respond to treatment?*
4. *Do PGD symptoms reliably discriminate between clinically distressed and nondistressed bereaved youth?*
5. *Do PGD symptoms show evidence of criterion-referenced validity?*
6. *Do PGD symptoms show evidence of factorial validity in bereaved youth?*
7. *Do PGD symptoms show evidence of reliability?*
8. *Do PGD symptoms show evidence of factorial invariance across different demographic groups of bereaved children and adolescents?*
9. *What is currently known about the duration of grief symptoms to require for a PGB diagnosis?*

## Proposed Developmental Modifications to the Panel Draft Criteria for Prolonged Grief Disorder

Our team has carefully considered the proposed PGD criteria and discussed them at length. In this process we have drawn on our published papers and research experience, other published papers, clinical experience, and new analyses conducted with our data sets to address the Panel's questions. Our proposed additions to the symptom and accompanying text are highlighted in yellow.

### Part 1: Proposed Developmental Modifications to Prolonged Grief Disorder Draft Criteria

In this section, we insert our recommended modifications to the draft criteria highlighted in yellow. Please note that we have broken Criterion B, which we consider double-barreled, into two separate items. We did this to make it more comprehensible and straightforward for assessing bereaved children and adolescents, who are easily confused by complex wording. We use this breakdown in our subsequent analyses, presented below, and find that the two B items perform well psychometrically.

- A. The death of a person close to the bereaved at least 12 months previously (for children and adolescents, at least 6 months previously).
- B. Since the death, there has been a grief response characterized by one or both of the following two symptoms:
1. Intense yearning/longing for the deceased person.
  2. Preoccupation with thoughts or memories of the deceased person. (Note: In children and adolescents, preoccupation may focus on the circumstances of the death.)

This response has been present to a clinically significant degree nearly every day for at least the last month.

- C. As a result of the death, at least x of the following symptoms have been experienced to a clinically significant degree, nearly every day, for at least the last month:
1. Identity disruption (e.g., feeling as though part of oneself has died). (Note: Children and adolescents may express this discontinuity as now feeling different from others and often self-conscious as a result, e.g., weird or different as a result of being motherless.)
  2. Marked sense of disbelief about the death. (Note: Young children may not understand the permanence of death.)
  3. Avoidance of, or efforts to avoid, reminders that the person is dead.
  4. Intense emotional pain (e.g., anger, bitterness, sorrow) related to the death. (Note: This may be motivated in children and adolescents by feeling deprived of the person's help in responding to developmental needs.)

5. Difficulty moving on with life (e.g., problems engaging with friends, pursuing interests, planning for the future). (Note: In children, this may take the form of inability to achieve developmental milestones).
  6. Emotional numbness. (Note: Young and school-age children may not understand or describe numbing. Adolescents may describe “not feeling anything.”)
  7. Feeling that life is meaningless. (Note: Older children and adolescents may express this as “it’s not worth trying,” “nothing really matters anymore” or “my life is ruined.”)
  8. Intense loneliness (i.e., feeling alone or detached from others).
- D. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- E. The duration of the bereavement reaction clearly exceeds expected social, cultural or religious norms for the individual’s culture and context.
- F. The symptoms are not better explained by another mental disorder.

**One Proposed Text Note for the Development and Course Section of DSM-5-TR:**

The following proposed text note specifically refers to proposed PGD symptom B1 (intense yearning/longing for the deceased person) as it may manifest in bereaved children:

Young children may express yearning in thought or play as a wish to literally physically reunite with the deceased (e.g., to climb a ladder to heaven, or lie in the ground next to them). This reunion fantasy may sometimes take the form of a wish to die or fantasies of dying. However, it is not suicidal ideation stemming from feeling that one cannot go on without the person. Rather, young children’s wishes or fantasies express, in concrete thinking, a way to overcome the painful physical separation (Kaplow, Layne, Pynoos, Cohen & Lieberman, 2012). Adolescents can express suicidal thinking similar to reports in adults.

**Part 2: Content Mapping of PCBD Checklist Items on to Corresponding PGD Symptoms**

*Procedure.* As a first step, we created a content mapping table in which we listed each proposed PGD symptom in the left column and corresponding PCBD Checklist test items in the right column. To be mapped onto a PGD symptom, each PCBD Checklist item had to meet two requirements: (a) Its contents had to correspond closely with the PGD symptom based on our expert judgment. (b) Given our search for items that were endorsed with sufficient frequency to be considered clinically significant, we selected one or two Checklist test item(s) with the highest mean rates of endorsement in our sample (the sample is described below).

*Results.* As shown in Table 1, we were able to map at least one PCBD Checklist test item onto each proposed PGD symptom. In some cases, multiple Checklist test items met our two

requirements for inclusion. Given our decision when constructing the PCBD Checklist to generate multiple items for grief symptoms that were either complexly worded or otherwise difficult for children to understand, we chose to include “double-mapping” PCBD Checklist items in our initial analyses (i.e., we mapped two PCBD Checklist items onto the same PGD symptom). We reserved the prerogative to drop one of the two double-mapping PCBD Checklist items at a later point in the analyses if one of the two items exhibited superior psychometric performance or clinical utility than its companion.

Table 1 lists the mapped PCBD Checklist test items under their corresponding PGD symptom. Proposed developmental modifications (as listed above in our breakdown of PGD criteria) are highlighted in yellow.

**Table 1: Content Mapping of Proposed PGD Symptoms onto PCBD Checklist Test Items**

<b>Proposed PGD Symptom</b>	<b>Corresponding PCBD Checklist Test Item(s)</b>
B1: Intense yearning/longing for the deceased person.	Item 13: I feel like I’ve just got to have ____ back.
	Item 1: I miss _____ so much that I feel like crying.
B2: Preoccupation with thoughts or memories of the deceased person.	Item 19: I just can’t stop thinking about ____.
B2 Note: In children and adolescents, preoccupation may focus on the circumstances of the death.	Item 9: I think about how things could have been different, so that ____ wouldn’t have died.
C1: Identity disruption (e.g., feeling as though part of oneself has died).	Item 12: I feel like when ____ died, a big part of me died too.
C1 Note: Children and adolescents may express this discontinuity as now feeling different from others, e.g., motherless.	Item 35: Not having _____ here makes me feel different from other kids.
C2: Marked sense of disbelief about the death. (Note: Young children may not understand the permanence of death.)	Item 3: I can't let myself believe that _____ is really dead
	Item 14: I feel shocked that ____ has died – it’s hit me like a ton of bricks.
C3: Avoidance of, or efforts to avoid, reminders that the person is dead.	Item 29: I want to stay away from things that remind me ____ has died (like his/her friends, places ____ used to be, or things he/she used to own).
C4: Intense emotional pain (e.g., anger, bitterness, sorrow) related to the death. (Note: This may be motivated in children and adolescents by feeling deprived of the person’s help in responding to developmental needs.)	Item 6: I feel so sad about losing ____ that my heart aches.

C5: Difficulty moving on with life (e.g., problems engaging with friends, pursuing interests, planning for the future). (Note: In children, this may take the form of inability to achieve developmental milestones).	Item 27: Without ____ here, it's harder to know what I should be doing with my life (like I feel really stuck).
C6: Emotional numbness. (Note: Young and school-age children may not understand or describe numbing. Adolescents may describe "not feeling anything.")	Item 26: Since ____ died, I don't seem to have any feelings at all (I haven't felt happy, sad, scared, angry, or anything).
C7: Feeling that life is meaningless. (Note: Older children and adolescents may express this as "it's not worth trying," "nothing really matters anymore" or "my life is ruined.")	Item 32: Life without ____ feels empty or pointless, like nothing really matters anymore.*
C8: Intense loneliness (i.e., feeling alone or detached from others).	Item 20: I feel all alone since ____ died.
	Item 21: It's hard to see other kids spending time with their ____ (insert relationship to person who died, such as "mom", "friend", "grandma", etc.), now that I don't get to anymore.

Note: PCBD test items are taken from the Persistent Complex Persistent Disorder (PCBD) Checklist (Layne, Kaplow, & Pynoos, 2014), and PTSD symptoms were measured using the UCLA Reaction Index for DSM-5 (Kaplow, Rolon-Arroyo, Layne, et al., 2019) (both are copyrighted by UC Regents). Depression symptoms were measured using the Mood and Feelings Questionnaire (MFQ) (Angold et al., 1995).

### Part 3: Evaluation of PGD Symptom Frequency Endorsement Rates

#### Description of the GIFT Network Data Set

*Sample description (taken from our test validation study: Kaplow, Layne, Oosterhoff....& Pynoos, 2018).* We conducted our analyses with a sample of bereaved youth ( $N = 367$ ,  $Mage = 13.49$  years,  $SD = 2.76$ ; age range: 8–18 years; 55.0% female). Youth were African American (46.0%), Caucasian (39.2%), biracial (6.5%), other (4.8%), or Asian (0.8%); 2.5% identified as Hispanic. Participants were recruited as part of a (at the time) 5-site practice research network comprised of school-based health clinics, grief support centers, community clinics, and academic medical center settings.

Inclusion criteria for study participants included: (a) the child experienced the death of a loved one, (b) the child was aged 8 to 18 years, and (c) the family spoke English. A survey of all practice research network sites revealed that only two children did not complete the full PCBD checklist. Both children were comparatively young (i.e., 8 years old) and seemed distracted and/or unable to fully understand the test items. Most youth had experienced the death of a parent ( $n = 116$ ), followed by grandparent ( $n = 114$ ), other extended family ( $n = 68$ ), sibling or friend ( $n = 58$ ), or other (e.g., teacher;  $n = 11$ ). The most common cause of death was anticipated ( $n = 166$ ), followed by sudden/natural ( $n = 89$ ), homicide ( $n = 61$ ), suicide ( $n = 40$ ), accident ( $n =$

22), and unknown cause ( $n = 21$ ). Over half of the youth in the sample (56.1%) had experienced multiple deaths (median: 2); among these multiply-bereaved youth, many ranked the death of a parent (46.0%) or grandparent (36.2%) as the most difficult to deal with. Youth were assessed an average of 2.4 years ( $SD = 3.01$ ) after the focal death.

*Description of the PCBD Checklist.* The Persistent Complex Bereavement Disorder (PCBD) Checklist is a 39-item measure of grief for youth designed to assess DSM-5 provisional PCBD criteria and identify youth at risk for maladaptive grief (Layne, Kaplow, & Pynoos, 2014). Items are rated on a 5-point Likert type scale ranging from 0 (not at all) to 4 (all the time). The PCBD Checklist has demonstrated strong convergent, discriminant, and discriminant-groups validity as well as developmental appropriateness and clinical utility (Kaplow et al., 2018; Layne, Kaplow, & Pynoos, 2014).

A recent open trial (Hill et al., in press; described below) of a new treatment for bereaved children and adolescents, Multidimensional Grief Therapy (Kaplow, Layne, Pynoos & Saltzman, under contract), utilized two different scoring procedures to score the PCBD Checklist in a clinic setting. The first scoring procedure aligned with PCBD Criterion B and Criterion C symptoms, yielding  $\alpha = .60$  for PCBD Criterion B ( $k = 7$  items) and  $\alpha = .88$  for PCBD Criterion C ( $k = 22$ ). The second scoring procedure aligned with the conceptual domains postulated by multidimensional grief theory (Layne, Kaplow, Oosterhoff, Hill, & Pynoos, 2017):  $\alpha = .92$  for Separation Distress ( $k = 15$  items),  $\alpha = .87$  for Existential/Identify Distress ( $k = 7$ ), and  $\alpha = .84$  for Circumstance-Related Distress ( $k = 10$ ). Given that the new treatment protocol derives from multidimensional grief theory, we utilized the second scoring procedure to score and interpret the test results of youths receiving the treatment.

***Primary Question 1: Do youth report proposed PGD symptoms with sufficient frequency to be considered clinically significant?***

***Primary Question 2: Do there appear to be age-related differences in symptom endorsement among bereaved children and adolescents?***

*Analyses.* We analyzed our GIFT Network data ( $N = 367$ ) in three ways to address Questions 1 and 2. These analyses included (a) calculating the mean score for the overall sample to evaluate the frequency with which each grief symptom was reported; (b) calculating the subgroup mean score for each year of age in the sample (age subgroups were mutually exclusive); and (c) calculating Pearson correlation coefficients between year of age and frequency ratings for each item.

*Results.* With respect to Question 1, bereaved youth in the sample reported experiencing proposed PGD reactions with moderate to high frequency (see Table 2, Mean Total Sample). These findings suggest that PGD symptoms are clinically relevant for, and apply to, bereaved children and adolescents aged 8-17 years. (We again emphasize that we selected the most highly-endorsed PCBD Checklist items corresponding to PGD symptom criteria as variables to study.)

With respect to Question 2, although we found some variation in endorsement rates across age groups for a given PGD symptom, the mean scores were fairly consistent, generally falling within the “3” and “4” values on our 1 to 5-point scale (see Table 2, subgroup means broken down by year). Items with the lowest endorsement rates included PGD Symptom C4 (avoidance of, or efforts to avoid, reminders that the person is dead) and PGD Symptoms C7

(numbness) and C8 (meaninglessness). These low rates of endorsement may call for developmental qualifiers noting that bereaved children and adolescents:

- (a) may have difficulty avoiding some things (e.g., caregivers control many of their activities) or may not be clearly aware of their desires to avoid reminders of the loss;
- (b) may not frequently experience numbing or at least be able to accurately describe the sensation of numbing;
- (c) may not experience meaninglessness as a common reaction.

Also regarding Question 2, we observed a number of statistically significant ( $p < .05$ ) but modest bivariate correlations between age and reported symptom frequency. With one exception, all significant correlations had a negative valence, signifying that they were reported at a generally higher frequency among younger youth compared to older youth. In particular, we observed significant correlations for Symptom B1 (yearning/longing;  $r = -.10$ ), B2 (preoccupation with the deceased;  $r = -.08$ ), C1 (feeling different from other kids,  $r = -.10$ ), C7 (meaninglessness;  $r = -.16$ ), and C8 (intense loneliness;  $r = -.11$ ). The sole exception, showing a positive valence (signifying that the symptom generally increased with increasing age), was symptom C4 (intense emotional pain;  $r = +.15$ ). Given that no significant correlation rose above .16 (< 3% variance explained), these differences are very modest and may call for a note explaining that although some age-related differences in symptom endorsement have been observed, these differences have been modest in size and invite further study.

Proposed developmental considerations for selected PGD symptoms are highlighted in yellow.

<b>Table 2: PGD Symptom Endorsement Rates (total mean, age subgroup mean, correlation with age). PGD Criterion B Symptoms:</b>											
Since the death, there has been a grief response characterized by one or both of the following two symptoms:											
PGD Symptom B1: Intense yearning/longing for the deceased person.											
<b>PCBD Item 13: I feel like I've just got to have _____ back. (interpretation: yearning/longing)</b>											
<b>Mean Total Sample</b>	<b>Correlation with age</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>
3.95	-.10*	4.08	4.19	4.03	3.95	3.87	3.94	3.64	3.92	3.73	3.84
<b>PCBD Item 1: I miss _____ so much that I feel like crying. (interpretation: yearning/longing)</b>											
<b>Mean Total Sample</b>	<b>Correlation with age</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>
<b>N = 760</b>	<b>(r)</b>	n=83	n=98	n=92	n=92	n=82	n=70	n=72	n=62	n=52	n=43
3.45	0.05	3.51	3.29	3.46	3.46	3.34	3.50	3.39	3.63	3.21	3.86
PGD Symptom B1: Preoccupation with thoughts or memories of the deceased person. (Note: In children and adolescents, preoccupation may focus on the circumstances of the death.)											
<b>PCBD Item 19: I just can't stop thinking about _____. (Interpretation: preoccupation with deceased)</b>											
<b>Mean Total Sample</b>	<b>Correlation with age</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>
3.81	-.08*	3.81	3.99	4.04	3.90	3.65	3.77	3.58	3.63	3.50	3.98
<b>PCBD Item 9: I think about how things could have been different, so that _____ wouldn't have died. (interpretation: preoccupation with the circumstances of the death)</b>											



Mean Total Sample	Correlation with age	8	9	10	11	12	13	14	15	16	17
N = 760 3.69	r 0.01	n = 83 3.62	n = 98 3.75	n = 92 3.63	n = 92 3.78	n = 82 3.61	n = 70 3.69	n = 72 3.36	n = 62 3.77	n = 52 3.83	n = 43 3.81
(Criterion B, cont.): This response has been present to a clinically significant degree nearly every day for at least the last month.											
<b>PGD Criterion C Symptoms:</b>											
As a result of the death, at least x of the following symptoms have been experienced to a clinically significant degree, nearly every day, for at least the last month:											
PGD Symptom C1: Identity disruption (e.g., feeling as though part of oneself has died). (Note: Children and adolescents may express this discontinuity as now feeling different from others, e.g., motherless.)											
<b>PCBD Item 12: I feel like when ____ died, a big part of me died too.</b>											
Mean Total Sample 3.40	Correlation with age 0.00	8 3.22	9 3.41	10 3.52	11 3.48	12 3.40	13 3.56	14 3.29	15 3.15	16 3.50	17 3.42
<b>PCBD Item 35: Not having ____ here makes me feel different from other kids.</b>											
Mean Total Sample 3.09	Correlation with age -.10*	8 3.41	9 3.54	10 3.19	11 2.82	12 2.77	13 2.99	14 2.93	15 2.79	16 2.92	17 3.33
PGD Symptom C2: Marked sense of disbelief about the death. (Note: Young children may not understand the permanence of death.)											
<b>PCBD Item 3: I can't let myself believe that ____ is really dead</b>											
Mean Total Sample 2.99	Correlation with age -0.07	8 3.13	9 3.20	10 2.85	11 3.14	12 2.99	13 2.97	14 2.71	15 2.90	16 2.73	17 2.95
<b>PCBD Item 14: I feel shocked that ____ has died – it's hit me like a ton of bricks.</b>											
Mean Total Sample 3.83	Correlation with age -0.02	8 3.83	9 3.88	10 3.84	11 3.98	12 3.73	13 3.90	14 3.72	15 3.61	16 3.79	17 3.98
PGD Symptom C3: Avoidance of, or efforts to avoid, reminders that the person is dead.											
<b>PCBD Item 29: I stay away from things that remind me ____ has died (like his/her friends, places ____ used to be, or things he/she used to own).</b>											
Mean Total Sample 1.99	Correlation with age 0.01	8 2.19	9 2.11	10 1.90	11 1.86	12 2.00	13 1.86	14 1.81	15 2.11	16 2.02	17 2.14
PGD Symptom C4: Intense emotional pain (e.g., anger, bitterness, sorrow) related to the death. (Note: This may be motivated in children and adolescents by feeling deprived of the person's help in responding to developmental needs.)											
<b>PCBD Item 6: I feel so sad about losing ____ that my heart aches.</b>											
Mean Total Sample 3.33	Correlation with age .15*	8 3.00	9 3.26	10 3.12	11 3.40	12 3.15	13 3.49	14 3.33	15 3.48	16 3.52	17 4.05
PGD Symptom C5: Difficulty moving on with life (e.g., problems engaging with friends, pursuing interests, planning for the future). (Note: In children, this may take the form of inability to achieve developmental milestones).											
<b>PCBD Item 27: Without ____ here, it's harder to know what I should be doing with my life (like I feel really stuck).</b>											

Mean Total Sample	Correlation with age	8	9	10	11	12	13	14	15	16	17
2.80	-0.05	3.07	2.94	2.92	2.73	2.51	2.63	2.58	2.76	2.69	3.05
PGD Symptom C6: Emotional numbness. (Note: Young and school-age children may not understand or describe numbing. Adolescents may describe “not feeling anything.”)											
PCBD Item 26: Since _____ died, I don’t seem to have any feelings at all (I haven’t felt happy, sad, scared, angry, or anything).											
Mean Total Sample	Correlation with age	8	9	10	11	12	13	14	15	16	17
2.14	0.06	2.10	2.09	2.05	2.01	1.91	2.36	2.18	2.31	2.29	2.35
PGD Symptom C7: Feeling that life is meaningless. (Note: Older children and adolescents may express this as “it’s not worth trying,” “nothing really matters anymore” or “my life is ruined.”)											
PCBD Item 32: Life without _____ feels empty or pointless, like nothing really matters anymore.*											
Mean Total Sample	Correlation with age	8	9	10	11	12	13	14	15	16	17
2.45	-0.04	2.55	2.61	2.51	2.47	2.34	2.29	2.21	2.34	2.52	2.65
PGD Symptom C8: Intense loneliness (i.e., feeling alone or detached from others).											
PCBD Item 20: I feel all alone since _____ died.											
Mean Total Sample	Correlation with age	8	9	10	11	12	13	14	15	16	17
2.95	-.16*	3.52	3.38	3.08	2.80	2.70	2.51	2.64	2.71	2.62	3.14
PCBD Item 21: It’s hard to see other kids spending time with their _____ (insert relationship to person who died, such as “mom”, “friend”, “grandma”, etc.), now that I don’t get to anymore.											
Mean Total Sample	Correlation with age	8	9	10	11	12	13	14	15	16	17
3.48	-.11*	3.82	3.86	3.71	3.41	3.15	3.20	3.07	3.39	3.38	3.86

1. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
2. The duration of the bereavement reaction clearly exceeds expected social, cultural or religious norms for the individual’s culture and context.
3. The symptoms are not better explained by another mental disorder.

#### Part 4: Analysis of Clinical Utility

##### *Primary Question 3: Is there evidence that PGD symptoms respond to treatment?*

A first source of evidence regarding the clinical utility of PGD symptoms comes from an open trial (N = 42) of outcomes associated with the use of Multidimensional Grief Therapy in treating PCBD symptoms (Hill, Oosterhoff, Layne, Rooney, Yudovich, Pynoos, & Kaplow, in press) conducted in a clinic-referred sample. Participants were 65 youths and their parents/guardians seeking bereavement-related services at the Trauma and Grief (TAG) Clinic at Texas Children’s Hospital. Participants were recruited via referrals from community agencies and schools in the TAG Clinic’s catchment area, or via self-referral, from October 2014 through June 2016. Inclusion criteria were (1) endorsement of bereavement (i.e., death of a loved one); and (2) a mean cut-off score of >2 on any grief domain (i.e., *Separation Distress, Existential/Identity*

*Distress, Circumstance-Related Distress*, as measured by the PCBD Checklist); or (3) high levels of psychological distress warranting intervention, as judged by consensus of the clinical team. Participants (53.0% female) ranged in age from 6 to 17 years ( $M = 11.62$ ,  $SD = 2.76$ ). The ethno-racial distribution of the sample approximated that of the geographic catchment area in which the clinic is located. Parents reported children's race/ethnicity as Hispanic (33.3%), African American or Black (31.8%), Caucasian (27.3%), mixed/ biracial (6.1%), or Native American (1.5%). At the time of the focal death, youths ranged in age from 3–16 years ( $M = 10.26$ ,  $SD = 3.30$ ), with an average duration since the death of 16.29 months ( $SD = 19.49$ , range = 1–84 months). The majority identified the death of a parent as their most difficult death ( $n = 22$ , 34.4% mother;  $n = 20$ , 31.4% father), followed by death of a sibling ( $n = 11$ , 16.7%), death of a grandparent or great-grandparent ( $n = 7$ , 10.6%), and death of another relation ( $n = 5$ , 7.5%). The most common cause of death was sudden illness, such as heart attack or stroke ( $n = 24$ , 36.4%); followed by chronic illness such as cancer ( $n = 13$ , 19.7%); murder ( $n = 10$ , 15.2%); accident such as a car accident, drowning, or fire ( $n = 9$ , 13.6%); suicide ( $n = 4$ , 6.1%); and other ( $n = 6$ , 9.0%).

As we note above, PCBD is a broader construct than PGD, such that (based on our content analysis) PCBD symptoms encompass and extend beyond PGD symptoms. Thus, evidence that treatment is associated with positive outcomes on a measure of PCBD symptoms in bereaved youth sheds light on the responsiveness to treatment of PGD symptoms in bereaved youth. Our open trial study design utilized three statistical tools to evaluate treatment response. The first tool consisted of dependent-samples  $t$  tests; the second consisted of effect sizes (Cohen's  $d$ ); and the third consisted of the Reliable Change Index (RCI), a variant of the standard error of the difference between two scores. The RCI is a commonly-used tool for evaluating statistically significant change at the individual-case level. It is a ratio comprised of the difference score between two different assessment points in treatment (e.g., baseline pre-treatment to post-Phase 1; baseline to post-Phase 2; post-Phase 1 to post-Phase 2) in the numerator, divided by the standard error of the difference between two scores (SED) in the denominator. Cases that exceed the SED are classified as Reliable Improvers (if they exceed the SED in a positive/improved direction) and as Reliable Deteriorators (if they exceed the SED in a negative direction). Cases that do not exceed the SED in either direction are classified as Treatment Non-Responders. Given the comparative novelty of the treatment (Multidimensional Grief Therapy, described next), the novelty of PGD as a diagnostic entity, and the critical importance of considering treatment responsiveness when evaluating a newly-proposed psychiatric disorder, we relied on the RCI as a rigorous tool to search for potential iatrogenic outcomes.

*Overview of the treatment.* Multidimensional Grief Therapy (MGT; Kaplow et al., under contract) is a 2-phase treatment designed for children and adolescents (ages 8 to 18) who are experiencing moderate to severe persisting maladaptive grief reactions. Youth experiencing persisting elevations in symptoms after completing Phase 1 then graduate on to Phase 2. Phase I, titled *Learning about Grief*, focuses primarily on grief psychoeducation, cognitive coping skill building, identification of loss and trauma reminders, and positive reminiscing. Phase II, titled

*Telling My Story*, guides the child through their own loss narrative by focusing on each grief domain (as described in multidimensional grief theory), including reducing grief-related distress and promoting adaptive grief reactions within each domain that is a focus of treatment. The loss narrative includes several “chapters” that help youth to organize and explore their grief-related thoughts, emotions, and experiences in a safe manner under the guidance of the therapist.

Using a scoring procedure for PCBD symptoms that reflected the three primary dimensions of multidimensional grief theory (Layne et al., 2017; i.e., *Separation Distress*, *Existential/Identity Distress*, *Circumstance-Related Distress*) Hill et al. (in press) found significant baseline to post-Phase I reductions (measured via *t*-scores) and very large effect sizes in each of the three theorized maladaptive grief domains:

- Separation Distress,  $t(41) = 8.74, p < .001, \text{Cohen's } d = 1.35$ ;
- Existential/identity distress,  $t(41) = 6.76, p < .001, d = 1.04$ ;
- Circumstance-Related Distress,  $t(41) = 7.58, p < .001, d = 1.17$ .

Over 60% of treated youth reliably improved on at least one grief subscale after Phase I as gauged using the RCI. Further, youth completing Phase II ( $n = 22$ ) exhibited significant reductions as benchmarked from the end of Phase I, showing medium to large effect sizes ( $d$  range = 0.57-0.90) for Separation Distress, Circumstance-Related Distress, PTSD symptoms, and depressive symptoms: 38.9% showed reliable improvement in PTSD symptoms; between 15.8% and 26.3% showed reliable improvement in maladaptive grief, 16.7% exhibited reliable improvement in depressive symptoms; and 47.4% of youth showed reliable improvement in at least one outcome (which in every treated case included at least one grief domain). In contrast, reliable deterioration in Phase II was rare: 0% showed reliable deterioration in PTSD symptoms and depressive symptoms; and 1 youth (5.3%) showed reliable deterioration on grief-related subscales measuring Separation Distress, Existential/Identity Distress, and Circumstance-Related Distress.

Looking to prior research as background context, these recent MGT open-trial findings (that reliable deteriorators are rare among bereaved youth receiving clinical grief-focused services) parallel those from a randomized controlled trial (RCT) of a trauma- and loss-focused group treatment implemented with war-exposed adolescents in post-war Bosnia (Layne et al., 2008). The treatment manual used at the time included a simple 4-session grief treatment module. This Bosnian RCT used a brief screening/assessment tool (the 12-item UCLA Grief Screening Scale) that served as a precursor to the PCBD Checklist. The UCLA Grief Screening Scale contained two subscales—*Traumatic Grief* and *Existential Grief*, which overlap with the Circumstance-Related Distress and the Existential/Identity Distress subscales we created from PCBD Checklist test items and used in the MGT open trial described earlier. The RCT treatment group (who received group-based treatment) showed modest rates of reliable improvement (40% for Traumatic Grief, 33% for Existential Grief) and no cases of reliable deterioration. In contrast, a comparison group (who received psychoeducation and instruction in coping skills, led by the same school counselors who led the treatment groups, in their homeroom class) showed almost no reliable improvement (8% improvement in Existential Grief) and significant reliable deterioration (8% in Traumatic Grief; 15% in Existential Grief). Given the high rates of trauma and traumatic bereavement in the sample, it is also notable that 58% of youth in the treatment group reliably improved (vs. 33% in the comparison group) in their PTSD symptoms.

Taken together, results of both the recent MGT open trial and the earlier RCT support the clinical utility—and specifically the treatment responsiveness—of the proposed PGD criterion set as gauged by medium to very large effects (measured by large dependent-t statistic values, Cohen’s *d*, and sizeable rates of RCI Reliable Improvers within each theorized grief domain). Other evidence supporting the clinical utility of proposed PGD symptoms include a low risk of iatrogenic outcomes (as measured by very low rates of RCI Reliable Deteriorators) in both the open trial and the RCT. We qualify these observations with the caveat that, by definition, the open-trial study design used to evaluate outcomes of Multidimensional Grief Therapy lacks a control group and randomized assignment, and thus does not support causal inference.

***Primary Question 4: Do PGD symptoms reliably discriminate between clinically distressed and nondistressed bereaved youth?***

A second source of evidence regarding the clinical utility of proposed PGD symptoms comes from an item discrimination analysis conducted for this report using the GIFT Network dataset (*N* = 367) (see Table 3). Our analytic strategy involved comparing scores on PGD B and C Criterion symptoms, partitioned into quintiles (20% increments) of *percentage of subgroup mean symptom endorsement* along the rows (range = 0-100% mean endorsement). We employed a decision rule of *score the symptom as present if the test item is endorsed at 4 or 5 on a 1-5 point frequency scale; else score as absent if item endorsed at 1, 2, or 3*. As shown in Table 3, Column 1 is divided into five sections including 0-19% mean item endorsement; 20-39% mean item endorsement, 40-59% mean item endorsement, 60-79% mean item endorsement, and 80-100% mean item endorsement) broken down by membership in either of two subsamples (represented in Columns 2 and 3). The first subgroup (*n* = 58), depicted in Column 2, consisted of youth who met full DSM-5 (provisional) PCBD criteria as measured by the PCBD Checklist (Layne, Kaplow, & Pynoos, 2014). The second subgroup (*n* = 309), depicted in Column 3, consisted of youth who did not meet PCBD criteria. We chose to use the PCBD Checklist as a benchmark for evaluating the clinical utility of proposed PGD items given that it is currently the most developmentally appropriate assessment tool for the provisional diagnosis of a grief-related disorder in bereaved children and adolescents (Kaplow et al., 2018), and because no other diagnostic decision-making tool was available in this data set. Nevertheless, given that the test items used to measure PGD symptoms also came from the PCBD Checklist, and the diagnostic decision made by the PCBD Checklist scoring procedure was used to sort youth into PCBD-positive and PCBD-negative subgroups, some between-groups discrimination is to be expected.

The results of this item discrimination analysis indicate that the PGD items show generally good clinical discriminability. No item was endorsed within the highest possible score range (80-100%) by either subgroup. Further, only the PCBD-positive subgroup endorsed mean item scores that fell within the next two quintile ranges (60-79% and 40-59% endorsed as symptom present). Consistent with its theorized role as a “gateway” PGD symptom, the highest-endorsed item (endorsed by 79% of the PCBD-positive subsample; see Column 3) was Symptom B1 (intense longing for the deceased person). The great majority of remaining PGD symptoms fell within the third and fourth quintile ranges in the PCBD-positive subgroup. In contrast, only three symptoms (C5, C6, and C7) fell within the lowest two quintile ranges in the PCBD-positive subgroup; of these, Symptoms C5 (difficulty moving on) and C7 (life is meaningless) fell one quintile higher (in the 20-39% range) than in the PCBD-negative subgroup. Only Symptom C6

(emotional numbing) showed no discrimination whatsoever (performing no discriminatory work), falling within the bottom quintile range in both PCBD-positive and negative subgroups.

Table 3. Distribution of Proposed PGD Symptoms as a Function of PCBD Diagnostic Status

% of bereaved youth endorsing item (mean = 4 or 5 on a 1-5 point scale)	Test Negative for PCBD± (PGD symptom) test item wording (% mean endorsement)	Test Positive for PCBD (PGD symptom), test item wording, (% mean endorsement)
Fifth Quintile: 80-100% of respondents endorsed symptom		
Fourth Quintile: 60-79% of respondents endorsed symptom		<ul style="list-style-type: none"> <li>• (B1) I feel like I've just got to have ___ back (79%)</li> <li>• (C2) I feel shocked that ___ has died -- it's hit me like a ton of bricks. (68%)</li> <li>• (B2) I just can't stop thinking about _____. (63%)</li> <li>• (C8) It's hard to see other kids spending time with their ____, now that I don't get to anymore (57%)</li> <li>• (B2) I think about how things could have been different, so that ___ wouldn't have died. (56%)</li> </ul>
Third Quintile: 40-59% of respondents endorsed symptom		<ul style="list-style-type: none"> <li>• (C1) Not having _____ here makes me feel different from other kids. (54%)</li> <li>• (C3) I want to stay away from things that remind me of the way that _____ died. (49%)</li> <li>• (C1) I feel like when _____ died, a big part of me died too. (46%)</li> <li>• (C4) I feel so sad about losing _____ that my heart aches. (45%)</li> <li>• (C2) I can't let myself believe ___ is really dead (43%)</li> <li>• (C8) I feel all alone since _____ died. (43%)</li> <li>• (B1) I miss ___ so much that I feel like crying (41%)</li> </ul>

<p>Second Quintile: 20-39% of respondents endorsed symptom</p>	<ul style="list-style-type: none"> <li>• (C2) I feel shocked that ____ has died -- it's hit me like a ton of bricks. (36%)</li> <li>• (B1) I feel like I've just got to have ____ back (33%)</li> <li>• (B2) I think about how things could have been different, so that _wouldn't have died. (33%)</li> <li>• (B2) I just can't stop thinking about _____. (31%)</li> <li>• (C8) It's hard to see other kids spending time with their ____, now that I don't get to anymore (29%)</li> <li>• (C2) I can't let myself believe ____ is really dead (28%)</li> <li>• (C3) I want to stay away from things that remind me of the way that _____ died. (25%)</li> <li>• (C1) I feel like when ____ died, a big part of me died too. (21%)</li> <li>• (C1) Not having _____ here makes me feel different from other kids. (21%)</li> <li>• (C4) I feel so sad about losing ____ that my heart aches. (20%)</li> </ul>	<ul style="list-style-type: none"> <li>• (C7) Life without ____ feels empty or pointless, like nothing really matters anymore. (32%)</li> <li>• (C5) Without ____ here, it's harder to know what I should be doing with my life (like I feel really stuck). (31%)</li> </ul>
<p>First Quintile: 0-19% of respondents endorsed symptom</p>	<ul style="list-style-type: none"> <li>• (C6) Since _____ died, I don't seem to have any feelings at all (19%) ±</li> <li>• (B1) I miss ____ so much that I feel like crying (18%)</li> <li>• (C5) Without ____ here, it's harder to know what I should be doing with my life (like I feel really stuck). (15%)</li> <li>• (C8) I feel all alone since _____ died. (12%)</li> <li>• (C7) Life without ____ feels empty or pointless, like nothing really matters anymore. (10%)</li> </ul>	<ul style="list-style-type: none"> <li>• (C6) Since _____ died, I don't seem to have any feelings at all (17%) ±</li> </ul>

\*Provisional PCBD diagnostic status was assessed by the PCBD Checklist (Layne, Kaplow, & Pynoos, 2014).

± PGD Symptom C6 (emotional numbing) is the only item in this analysis to show no discrimination (as manifest by falling within the same quartile) between youth who tested positive vs. negative for PCBD.



**Primary Question 5: Do PGD symptoms show evidence of criterion-referenced validity?**

A third source of evidence regarding the clinical utility of PGD symptoms comes from an evaluation of the criterion-related validity of proposed PGD test items. As shown in Table 4, we found evidence of criterion-referenced validity in the form of significant bivariate correlations between individual PGD symptoms (operationally defined by individual PCBD Checklist test items) and external criterion measures of PTSD and depression. These bivariate correlations fell within the low to moderate range (> .24 to < .51), which is to be expected of individual test items with limited variances. Our proposed developmental modifications (highlighted in yellow), including Criterion B2, performed similarly compared to other PGD items in their magnitudes of correlation with the two external criterion measures.

**Table 4: Criterion-Referenced Validity of Individual PGS Symptoms with Measures of PTSD and Depression**

<b>Proposed PGD Symptom</b>	<b>Corresponding PCBD Checklist Test Item(s)*</b>	<b>Bivariate Correlation with PTSD**</b>	<b>Bivariate Correlation with Depression***</b>
B1: Intense yearning/longing for the deceased person.	Item 13: I feel like I've just got to have ____ back.	.355**	.270**
	Item 1: I miss _____ so much that I feel like crying.	.345**	.320**
B2: Preoccupation with thoughts or memories of the deceased person.	Item 19: I just can't stop thinking about _____.	.379**	.261**
B2 Note: In children and adolescents, preoccupation may focus on the circumstances of the death.	Item 9: I think about how things could have been different, so that ____ wouldn't have died.	.344**	.246**
C1: Identity disruption (e.g., feeling as though part of oneself has died).	Item 12: I feel like when ____ died, a big part of me died too.	.384**	.356**
C1 Note: Children and adolescents may express this discontinuity as now feeling different from others, e.g., motherless.	Item 35: Not having _____ here makes me feel different from other kids.	.385**	.356**
C2: Marked sense of disbelief about the death. (Note: Young children may not understand the	Item 3: I can't let myself believe that _____ is really dead	.392**	.290**

permanence of death.)	Item 14: I feel shocked that ____ has died – it’s hit me like a ton of bricks.	.293**	.236**
C3: Avoidance of, or efforts to avoid, reminders that the person is dead.	Item 29: I want to stay away from things that remind me ____ has died (like his/her friends, places ____ used to be, or things he/she used to own).	.350**	.238**
C4: Intense emotional pain (e.g., anger, bitterness, sorrow) related to the death. (Note: This may be motivated in children and adolescents by feeling deprived of the person’s help in responding to developmental needs.)	Item 6: I feel so sad about losing ____ that my heart aches.	.507**	.405**
C5: Difficulty moving on with life (e.g., problems engaging with friends, pursuing interests, planning for the future). (Note: In children, this may take the form of inability to achieve developmental milestones).	Item 27: Without ____ here, it’s harder to know what I should be doing with my life (like I feel really stuck).	.375**	.361**
C6: Emotional numbness. (Note: Young and school-age children may not understand or describe numbing. Adolescents may describe “not feeling anything.”)	Item 26: Since ____ died, I don’t seem to have any feelings at all (I haven’t felt happy, sad, scared, angry, or anything).	.386**	.289**
C7: Feeling that life is meaningless. (Note: Older children and adolescents may express this as “it’s not worth trying,” “nothing really matters anymore” or “my life is ruined.”)	Item 32: Life without ____ feels empty or pointless, like nothing really matters anymore.*	.435**	.407**
	Item 20: I feel all alone since ____ died.	.406**	.434**

C8: Intense loneliness (i.e., feeling alone or detached from others).	Item 21: It’s hard to see other kids spending time with their ____ ( <i>insert relationship to person who died, such as “mom”, “friend”, “grandma”, etc.</i> ), now that I don’t get to anymore.	.419**	.360**
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*Note:* PCBD test items are taken from the Persistent Complex Persistent Disorder (PCBD) Checklist (Layne, Kaplow, & Pynoos, 2014), and PTSD symptoms were measured using the UCLA Reaction Index for DSM-5 (Kaplow, Rolon-Arroyo, Layne, et al., 2019) (both are copyrighted by UC Regents). Depression symptoms were measured using the Mood and Feelings Questionnaire (MFQ) (Angold et al., 1995). \*\* p < .001

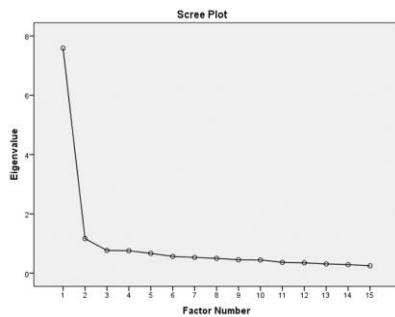
## Part 5: Analysis of Test Validity and Reliability

### *Question 6: Do PGD symptoms show evidence of factorial validity in bereaved youth?*

Next, we evaluated the factorial validity of the proposed PGD symptoms by factor analyzing the full set of items (PGD Symptoms B and C) we had thus far studied. Given that the dually-mapped items had shown good discriminative work and criterion-referenced validity, we chose in our initial run to include all items under study (i.e., those items listed in the right-hand column of Table 1). Although we found evidence of a 2-factor solution for PCBD using the PCBD Checklist (Kaplow et al., 2018), given that PGD is a shorter, simpler, and more parsimonious set of test items, and given findings of a 1-factor solution by the other two adult-focused teams presenting to the APA panel, we chose to run an exploratory factor analysis.

#### 1. Dimensionality

*Exploratory factor analysis.* An exploratory factor analysis with accompanying scree plot found that the PGD items (including our recommended B Symptom Criterion items) loaded a single common factor, providing evidence of unidimensionality. Specifically, we conducted Principal Axis factor analysis with Oblim (oblique) rotation on all PGD items with the practice-research network sample (N = 367 youth). We initially identified a 2-factor solution using a simple “eigen value > 1” rule (Factor 1 eigenvalue = 7.590; Factor 2 eigenvalue = 1.165). However, after inspecting all output, we noted that the second factor was driven primarily by two items as well as the presence of several cross-loadings (i.e., splitting of item loadings across factors). We thus chose to retain the more parsimonious 1-factor solution, interpreting the results as supporting factorial validity of the PGD item set. Of special note, two symptoms (emotional numbing C6 and avoidance C3) had low factor loadings (below .50) but were retained to retain the integrity of the full PGD diagnostic entity.



**Factor Matrix<sup>a</sup>**

	Factor
	1
PCBD Item 1 (PGD symptom B1): I miss ___ so much that I feel like crying.	.684
PBCD Item 12 (PGD Symptom C1): I feel like when _____ died, a big part of me died, too.	.692
PCBD Item 9 (PGD Symptom B2): I think about how things could have been different, so that _____ wouldn't have died.	.589
PCBD Item 19 (PGD Symptom B2): I just can't stop thinking about _____.	.789
PCBD Item 14 (PGD Symptom C2): I feel shocked that ___ has died -- it's hit me like a ton of bricks.	.643
PCBD Item 32 (PGD Symptom C7): Life without ___ feels empty or pointless, like nothing really matters anymore.	.754
PCBD Item 35 (PGD Symptom C1): Not having ___ here makes me feel different from other kids.	.709
PCBD Item 13 (PGD Symptom B1): I feel like I've just got to have ___ back.	.765
PCBD Item 27 (PGD Symptom C5) Without ___ here, it's harder to know what I should be doing with my life (like I feel really stuck).	.747
PCBD Item 29: (PGD Symptom C3): I stay away from things that remind me _____ has died (like his/her friends, places _____ used to be, or things he/she used to own).	.478
PCBD Item 21: (PGD Symptom C8): It's hard to see other kids spending time with their ___ (clinician states child's relationship to deceased such as "mom", "sister", "friend", etc.), now that I don't get to anymore.	.701
PCBD Item 20: (PGD Symptom C8): I feel all alone since ___ died	.763
PCBD Item 26: (PGD Symptom C6): Since _____ died, I don't seem to have any feelings at all (I haven't felt happy, sad, scared, angry, or anything).	.485
PCBD Item 3: (PGD Symptom C2): I can't let myself believe ___ is really dead	.661
PCBD Item 6: PGD Symptom C4): I feel so sad about losing ___ that my heart aches	.755

Extraction Method: Principal Axis Factoring. a. 1 factors extracted. 4 iterations required.

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***Question 7: Do PGD symptoms show evidence of reliability?***

1. Reliability

*Coherence (Cronbach's Alpha).* Consistent with our factor analytic results, Cronbach's Alpha fell within the high range for Criterion B symptoms (.87), Criterion C symptoms (.89), and the full scale (0.93).

*Incremental value added.* We next evaluated Alpha if Item Deleted and Item-Total Correlation for each PGD test item under study. Underscoring the cohesiveness and utility of each PGD symptom, our analyses revealed that Alpha if Item Deleted revealed that Alpha was diminished if an item was removed from the scale. Corrected item-total correlations varied in magnitude, ranging from lows of .462 (C3: avoidance) and .468 (emotional numbing) to a high of .757 (B2: Preoccupation with thoughts or memories of the deceased person).

*Test-retest reliability.* (to be reported once data are collected at the TAG Center clinic and analyzed)

***Question 8: Do PGD symptoms show evidence of factorial invariance across different demographic groups of bereaved children and adolescents?***

Our data allow us to address this question indirectly using findings from a recent analysis (the manuscript is currently being revised after receiving a revise-and-submit from the editor) of the factorial invariance of PCBD symptoms as measured using the PCBD Checklist (Hill et al., 2020). As noted previously, the PCBD symptom set is broader, encompassing more symptoms than PGD.

Participants were 594 youth (50.4% Female), aged 7-18 years, (M = 11.91, SD = 2.80) who were evaluated as part of standard care at a community-based grief support center. Youth self identified as Hispanic (n = 184, 30.8%), non-Hispanic white (n = 179, 30.0%), and African American/Black (n = 136, 22.8%). Confirmatory factor analysis of a hypothesized two-factor structure (comprised of PCBD Criterion B and Criterion C symptoms, respectively) yielded good fit for the hypothesized two-factor model. The authors then evaluated the measurement invariance of the PCBD Checklist with respect to three demographic groups: gender (boys and girls), race/ethnicity (White, Black, and Hispanic youth), and age (school age, pre-adolescent, and adolescent youth) using a series of stepwise, multi-group confirmatory factor analyses. Results provided evidence supporting the measurement invariance of the test across all three groups, including *configural invariance* (Criterion B and C symptom clusters load onto a two-factor structure of PCBD across all three groups), *metric invariance* (factor loadings are equivalent across all three groups), and *scalar invariance* (item-level means are consistent across groups when the latent variable mean is set to zero). Study results suggest that the PCBD Checklist Criterion B and C scores are measuring similar latent variables, to a similar degree, across gender, race/ethnicity, and age.

Hill et al. (2020) also found modest between-group differences in latent mean scores. Girls reported higher grief scores than boys, and both Black and Hispanic youth reported higher grief scores than White youth for both Criterion B and C. School-age youth (8-10 years) scored higher than adolescent and pre-adolescent youth on Criterion C, but did not significantly differ on Criterion B scores. Although significant, these differences were nevertheless comparatively small (< 0.35 points on a 5-point scale). The authors conclude with a call for additional research to examine potential explanatory factors that may account for these differences across gender, race/ethnicity, and age groups. They also underscore that the three forms of factorial invariance found support the generalizability and clinical utility of the PCBD Checklist, allowing it to be administered across diverse groups with confidence that it is measuring proposed PCBC diagnostic criteria in a similar manner across subgroups.

***Question 9: What is currently known about the duration of grief symptoms to require for a diagnosis in bereaved youth?***

Although naturalistic longitudinal data are not currently available to directly address the question of how long symptoms should persist in order to meet a diagnosis of PGD, we consider it appropriate to revisit the rationale we offered in our invited analysis of proposed PCBD symptoms (Kaplow, Layne, Pynoos, et al., 2012, p. 249) regarding why requiring 6 months is appropriate for bereaved children and adolescents. Our reasons include:

1. Child bereavement studies are quite consistent in reporting (a) an increase in adjustment and behavioral problems among a significant minority of bereaved children (e.g., 28% in community samples and 40% in clinic-referred samples) during the first and second years following the death of a parent, sibling, or peer (Dowdney, 2000) and (b) that children who are likely to exhibit the most severe pathological grief reactions will do so within the first several months of the death (Brown et al., 2008; Melhem et al., 2007).
2. A longitudinal study of adolescent friends of peers who died by suicide found that prolonged intense grief reactions at 6 months predicted the onset or course of depression and PTSD at later assessment points (Melhem et al., 2004). The capacity to identify manifestations of grief that predict persisting severe maladjustment underscores the greater utility of a shorter time duration compared to waiting for a year to pass before a diagnosis can be assigned.
3. Ample evidence in the child development literature (e.g., Greenough, Black, & Wallace, 1993; Patterson, 2008) documents that one year in a young child's life can span a major developmental period ("children grow up very fast") and may constitute a lost opportunity for timely remediation of developmental disruption. These disruptions include developmental regressions, developmental interruptions/freezing, precocious developmental accelerations, reluctance to engage in developmental tasks after coming of age, and risky behavior (Saltzman, Layne, Pynoos, Olafson, Kaplow, & Boat, 2017). Any of these disturbances can interfere with bereaved youths' ability to achieve developmental tasks at appropriate ages, acquire developmental competencies, and take advantage of developmental opportunities (Layne et al., 2017).
4. Given that children rely on responsive caregivers to facilitate adaptive grief responses, the capacity to identify early signs of significant maladjustment may permit more timely intervention focused on promoting effective facilitation of a child's adaptation

to the death and thus help to prevent severe, persisting, and developmentally impactful maladaptive grief reactions (Wardecker, Kaplow, Layne, & Edelstein, 2017; Roley-Roberts, Hill, Layne, Goldenthal, & Kaplow, 2018).

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