Sudden Loss and Psychiatric Disorders Across the Life Course: Toward a Developmental Lifespan Theory of Bereavement-Related Risk and Resilience

Although death of a loved one is one of the most commonly reported adverse life events (1), few studies explicitly examine links between bereavement and lifetime risk for psychiatric diagnosis. In this issue, Keyes and colleagues (2) present one of the first population-based studies to examine associations between the unexpected death of a loved one and psychiatric disorder across the lifespan.

Study Methods and Results

The sample of adults (N=27,534) was drawn from the National Epidemiologic Survey on Alcohol and Related Conditions. Unexpected deaths included terrorist attacks, accidents, murders, suicides, and heart attacks. Respondents also reported on the occurrence of other potentially traumatic events (e.g., interpersonal violence, accidents). Psychiatric disorders, assessed with the Alcohol Use Disorder and Associated Disabilities Interview–Schedule IV, included major depressive episode, dysthymia, manic episodes, panic disorder, social phobia, specific phobia, generalized anxiety disorder, posttraumatic stress disorder (PTSD), and alcohol abuse or dependence.

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Results showed that approximately half the sample had experienced the unexpected death of someone close to them, and approximately 80% had experienced at least one other traumatic event. Although the majority of participants did not develop a psychiatric disorder following an unexpected death, the authors found a significant association between unexpected death and risk for a range of psychiatric diagnoses across the lifespan after controlling for other traumas. The onset of specific disorders appeared to vary as a function of the age interval in which the death occurred. For example, unexpected death was associated with onset of PTSD, panic disorder, and depression regardless of when the death occurred in respondents' lives; in contrast, risk for onset of generalized anxiety disorder, social phobia, manic episode, and alcohol use was greater if the death occurred later in respondents' lives (after age 40). The authors also found a dose-response relation between number of unexpected deaths and number of lifetime psychiatric disorders.

In summary, the study by Keyes et al. documents the *co-occurrence* and *covariation* between bereavement and various psychiatric disorders across the lifespan—an essential first step in constructing a causal theory capable of explaining how bereavement-related pathology develops over time (3). The findings also point to the potency of accumulating losses in predicting the onset of psychiatric disorders across the life course, beginning as early as age 5. This study underscores the need

for a developmental lifespan theory of bereavement-related risk and resilience—an undertaking that will require the integration of the growing child bereavement literature with the more well-established adult bereavement literature (including influential theories of adult grief [4]). In the following, we highlight findings from the study by Keyes and colleagues as well as relevant child bereavement research that, in combination with adult grief studies, may serve as foundational building blocks for constructing an integrative developmental lifespan theory.

Unexpected Death as an Overlooked Candidate Risk Factor?

The study by Keyes et al. builds on findings from a previous epidemiological study linking bereavement with risk for psychopathology (5) by using a larger, national sample and extending the age range into later adulthood. The current study provides further evidence that the unexpected death of someone close is the most frequently reported "traumatic event" and is most likely to be identified as the worst life event regardless of whether other traumas have also occurred. Study findings linking the occurrence and accumulation of unexpected deaths to adverse outcomes at different points across the lifespan (and the finding that most bereaved participants did *not* develop psychiatric disorders) carry implications for theory building and intervention. Implications include the need for guiding theory that describes and predicts both "normal" and "maladaptive" responses to bereavement and the valuable role that vulnerability and protective factors may play as foci for interventions designed to reduce loss-related psychiatric sequelae (3, 6, 7).

Toward a Developmental Theory of Bereavement-Related Psychopathology

The study's life course perspective is commendable given that most bereavement studies focus on *either* children *or* adults (8). The findings raise questions regarding the potential moderating effect of developmental stage on sudden bereavement. Whereas some psychiatric sequelae appear to manifest relatively uniformly across the life course, other sequelae appear to concentrate in older age. This finding is consistent with prior work reporting differential effects of other traumatic experiences (e.g., abuse) as a function of the age period during which the trauma occurred (9). A methodological strength of the Keyes et al. study was the decision to control for other traumas. Nevertheless, given the high proportion of bereaved participants who experienced multiple traumatic events, a lifespan perspective invites consideration of ways in which accruing unexpected deaths and other traumata over time can create "risk factor caravans" that accumulate and cascade forward in their adverse effects, increasing risk for, and vulnerability to, future risk factors and pathology (10). The finding that individuals bereaved by multiple deaths were more likely to develop additional psychiatric disorders is consistent with this view. Results further underscore the value of a developmentally informed theory that can explain how and why differential sequelae may emerge as a function of life stage at the time of bereavement and the dynamic interplay that can arise between trauma, loss, and secondary adversities over time (11, 12).

In Search of Mediating Causal Pathways

The grief field is in need of research designs and conceptual frameworks that clarify potentially differential relations between specific characteristics of bereavement

(e.g., circumstances of the death [13]), age-related reactions to the loss (e.g., coping [14], grief reactions [15]), and developmental trajectories across the lifespan (10, 16, 17), including risks for proximal and distal adverse outcomes (e.g., substance abuse, depression) (5). The Keyes et al. study contributes to such theory-building work by using a large population-based sample and focusing on a range of psychiatric outcomes across the life course. In discussing the study's methodological limitations, the authors note the absence of data regarding death-related contextual factors (anticipation of death, relationship to the deceased) that may influence the etiology of pathology (18). As evidenced by studies of bereaved youth, different death-related circumstances may significantly differ in their potencies, work through different pathways of influence, and produce different sequelae (16, 17). For example, recent evidence suggests that, in children, the "anticipated" death of a caregiver (e.g., through cancer) may be more pathogenic (associated with higher levels of posttraumatic stress and maladaptive grief) than sudden death (e.g., from an accident or heart attack) (13). Similarly, the psychiatric sequelae of suicide-related deaths may differ from those following other forms of sudden death (19). The effects of bereavement may also vary as a function of one's relationship to the person who died (5) and (as highlighted in the current study) the timing of the death (20).

Keyes et al. propose other potentially important mediators, including loss of social support and neurobiological stress responses (21, 22), while noting that the study design did not include a measure of grief—an intervening construct that may help explain the wide range of psychiatric outcomes reported. Multidimensional grief theory postulates that specific dimensions of maladaptive grief (including those described by Keyes et al., such as separation distress and disruptions in self-concept [15]) may differentially confer risk for various psychiatric disorders (6, 18). Future research that incorporates multidimensional measures of grief (23) and bereavement-related contextual factors (24) carries promise for explicating diverse ways in which bereavement, grief, and circumstances of the death may intersect and differentially contribute to psychiatric risk or resilience across the lifespan (8, 10, 17, 18). Our ability to develop effective interventions for bereaved children and adults in need of treatment rests largely on the success with which we unpack the essential features and roles of grief and the socioenvionmental factors that form the context of bereavement (3, 16–18).

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JULIE B. KAPLOW, PH.D.
CHRISTOPHER M. LAYNE, PH.D.

From the Trauma and Grief Center for Youth and the Department of Psychiatry, University of Texas Health Sciences Center at Houston; the Department of Psychiatry and Behavioral Sciences, UCLA; and the UCLA/Duke University National Center for Child Traumatic Stress, Los Angeles and Durham, N.C. Address correspondence to Dr. Kaplow (julie.kaplow@uth.tmc.edu). *Editorial accepted for publication May 2014 (doi: 10.1176/appi.ajp.2014.14050676).*

Drs. Layne and Kaplow are co-developers of the Bereavement Risk and Resilience Index (BRRI), the Persistent Complex Bereavement Disorder (PCBD) Checklist (with Dr. Robert Pynoos), and Trauma and Grief Component Therapy for Adolescents (TGCT-A) (with Drs. William Saltzman, Robert Pynoos, Erna Olafson, and Barbara Boat). Dr. Freedman has reviewed this editorial and found no evidence of influence from these relationships.