Posttraumatic growth in children and youth:

Clinical implications of an emerging research literature

Abstract

Posttraumatic growth (PTG), positive change resulting from the struggle with trauma, has garnered significant attention in the literature on adults. Recently, the research base has begun to extend downward, and this literature indicates that youth also evidence PTG-like changes. Researchers have sought to assess the construct, examine its correlates, and understand the factors that contribute to PTG in youth. Drawing from this work, this article considers clinical implications for youth. After briefly describing the PTG construct, its hypothesized process, and its distinction from resilience, the article focuses on key themes in the literature and, with those findings as backdrop, ways in which professionals can facilitate growth in youth who have experienced trauma. This discussion situates PTG within the broader trauma literature and includes specific applications used to date as well as the role of cultural factors. Future directions – salient to practitioners and researchers alike – are considered.

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With its emphasis on the transformative elements of one's reactions and response to adversity, posttraumatic growth (PTG), defined as positive change experienced as a result of the struggle with trauma, has received considerable attention in the adult clinical and research literatures (e.g., Calhoun & Tedeschi, 2006; Helgeson, Reynolds, & Tomich, 2006; Joseph & Linley, 2008; Knaevelsrud, Liedl, & Maerker, 2010). In the last several years, this research base has begun to extend downward, with researchers exploring the degree to which children and adolescents evidence PTG. Indeed, an emerging literature supports that youth demonstrate a PTG-like phenomenon (Meyerson, Grant, Smith Carter, & Kilmer, 2011), and recent efforts have sought to develop means to better assess the construct in youngsters (Kilmer et al., 2009), examine its correlates (Cryder, Kilmer, Tedeschi, & Calhoun, 2006), and understand the factors that contribute to PTG (Kilmer & Gil-Rivas, 2010a). Subsequently, researchers have begun to articulate possible clinical applications of this work to youth populations. This article draws on recent findings to build on and extend two contributions (Clay, Knibbs, & Joseph, 2009; Kilmer & Gil-Rivas, 2008) regarding the practical applications of the developing knowledge base.

The following sections: a) introduce the PTG construct and its hypothesized mechanisms and processes; b) discuss its conceptual and empirical differences from resilience; c) summarize key themes and findings in the extant research; d) consider unanswered questions and gaps in the literature and their potential implications; and e) outline means by which professionals can facilitate PTG in children and youth, including some specific applications used to date.

What is Posttraumatic Growth?

Although the term *posttraumatic growth* (and its present connotations) was coined fairly recently (Tedeschi & Calhoun, 1995, 1996), the notion of PTG has historical grounding in

psychology, philosophy, and other disciplines. In the last two decades, the construct has spawned over 900 articles, chapters, special issues, and volumes (Calhoun & Tedeschi, 2006; Joseph & Linley, 2006, 2008), including sources for practitioners (Calhoun & Tedeschi, 1999, 2013; Tedeschi & Calhoun, 2009; Tedeschi & Kilmer, 2005). These works largely focus on adults.

The scholarly literature is less well-developed for children and adolescents, but researchers have documented PTG-like changes in youth who have experienced natural disasters (Cryder et al., 2006; Hafstad, Gil-Rivas, Kilmer, & Raeder, 2010; Hafstad, Kilmer, & Gil-Rivas, 2011; Kilmer et al., 2009; Yang, Lin, & Qian, 2010; Yu et al., 2010), terrorism (e.g., Laufer & Solomon, 2006; Levine, Laufer, Hamama-Raz, Stein, & Solomon, 2008), traffic accidents (Salter & Stallard, 2004), cancer (e.g., Barakat, Alderfer, & Kazak, 2006), parental loss and institutional deprivation (Kilmer, Calhoun, Tedeschi, McAnulty, & Gil-Rivas, 2006), and a range of potentially traumatic events (e.g., Alisic, van der Schoot, van Ginkel, & Kleber, 2008; Ickovics et al. 2006; Milam, Ritt-Olson, & Unger, 2004; Taku, Kilmer, Cann, Tedeschi, & Calhoun, 2011). Indeed, sufficient research on PTG (and related constructs) in children and adolescents has been conducted to justify a comprehensive, systematic review of the literature (Meyerson et al., 2011), with recent additions since that review (Glad, Jensen, Holt, & Ormhaug, 2013; Yablon, Itzhaky, & Pagorek-Eshel, 2011). This emerging literature provides the foundation for the present work, laying needed groundwork for its applied emphasis and the recommendations put forth.

Hypothesized Key Elements of the Posttraumatic Growth Process in Youth

Although the area is nascent in its development, theoretical and conceptual writings related to PTG in children and adolescents (e.g., Alisic, Boeije, Jongman, & Kleber, 2011; Clay et al., 2009; Kilmer, 2006; Kilmer & Gil-Rivas, 2010a) have drawn from the larger trauma and

adult PTG literatures (e.g., Calhoun & Tedeschi, 2006; Janoff-Bulman, 1992) to articulate the hypothesized growth process. In many cases, trauma can shake a young person's internal working model and basic assumptions about the world, influencing and even altering central assumptions or core beliefs about one's self, others, one's world, and the expected course of one's life (Cann et al., 2010; Janoff-Bulman, 1992; see Alisic et al., 2011 for an alternative view) and, in turn, stimulating attempts to cope and adapt. As other authors have emphasized, growth is thought to evolve as a result of this struggle with trauma and its aftermath, not solely the experience of the trauma itself – that is, it is thought to develop as one comes to grips with his or her new reality and works to understand what has happened and its implications for life going forward (Calhoun & Tedeschi, 2006). In fact, it is thought that this continuing distress and efforts to reconcile one's post-trauma reality facilitate a constructive cognitive processing of trauma, or what has been deemed *productive rumination* (Calhoun & Tedeschi, 2006; Tedeschi, Calhoun, & Cann, 2007).

Through this deliberate and constructive ruminative process (see Watkins, 2008), one may try to make sense of the event(s) and integrate the trauma and its aftermath in a manner consistent with prior internal representations, or working models. Subsequently, this ruminative process is thought to yield schema change, which consolidates changed perspectives on self, others, and one's new life and way of living (Calhoun & Tedeschi, 2006; Janoff-Bulman, 1992). Research suggests that the changes framed as PTG tend to cohere in several main domains: a greater sense of one's personal strength; a different perspective on one's relationships; a changed philosophy of life, such as a greater appreciation for life and its new possibilities; and spiritual growth (see Calhoun & Tedeschi, 2006; Kilmer, 2006 for descriptions).

The PTG Process: Some Caveats and Developmental Considerations

Existing evidence suggests that, following trauma, the reactions and responses of children and youth at different ages and stages vary, in part because their cognitive and emotional capacities lead them to understand and internalize the experience differently (National Child Traumatic Stress Network [NCTSN], n.d.; Osofsky, 2004; see Kilmer & Gil-Rivas, 2010a for a detailed discussion). In light of these realities, and because PTG appears to require the cognitive capacity to allow both losses and gains to be recognized, the extent to which the growth process in children accords with the process observed among adults is unclear (Cryder et al., 2006; Kilmer, 2006). Recent research, however, has uncovered some of the key elements of this process, including some that appear 'active' for both youngsters and adults, such as ruminative processes (Kilmer & Gil-Rivas, 2010a; Meyerson et al., 2011).

Nevertheless, it is imperative to acknowledge the variability in children's psychological mindedness or self-understanding and awareness. That variation – and the fact that children's internal representations, basic assumptions, and working models are not yet set – has implications for the degree to which a child has the capacity to go through the process that yields PTG, and also points to the potential role of caregivers and other important adults in the child's life in supporting the PTG process (Kilmer & Gil-Rivas, 2010a; Osofsky, 2004; Shahinfar & Fox, 1997). Indeed, a youngster's response to trauma, understanding of what happened, and coping repertoire will be influenced meaningfully by caregivers (see below for a more detailed discussion). Moreover, a given child must be able to recognize and express emotions, both positive and negative, regarding the experience (see Harter, 1986, 2006; Harter & Buddin, 1987; Kilmer, 2006). These considerations, as well as the fact that several important cognitive resources and operations do not emerge until middle childhood – including increased competence in regulating emotions and trauma-related thoughts (Salmon & Bryant, 2002),

increased capacity for emotion-focused and cognitively-oriented coping, and more realistic control expectations (Aldwin, 2007; Compas et al., 2001; Salmon & Bryant, 2002) – point to a potential lower age limit for PTG of approximately 7 years of age (Kilmer, 2006).

Although some authors have raised concerns about whether PTG is possible in children, findings suggest that PTG does occur among children and youth; however, some have questioned whether this growth simply reflects normative maturation (e.g., Cohen, Hettler, & Pane, 1998). Few studies have addressed this potential issue, but existing data (Alisic et al., 2008; Taku, Calhoun, Kilmer, & Tedeschi, 2008; Taku et al., 2011) suggest that PTG reflects a process beyond normative growth (Kilmer & Gil-Rivas, 2010a).

Posttraumatic Growth and Resilience

It is also necessary to distinguish PTG from resilience. Resilience and PTG in children clearly share conceptual variance (Kilmer, 2006), and some have suggested that they are interchangeable. While similar in that they tap into some positive manifestation of one's response post-adversity, the weight of the writings in this area suggest they are distinct constructs (Clay et al., 2009; Kilmer, 2006; Kilmer & Gil-Rivas, 2008, 2010a). Multiple authors (Clay et al., 2009; Cryder et al., 2006; Kilmer, 2006; Kilmer & Gil-Rivas, 2008) have delineated the differences: while resilience refers to "a dynamic developmental process reflecting evidence of positive adaptation despite significant life adversity" (Cicchetti, 2003; also see Luthar, Cicchetti, & Becker, 2000; Masten, 2001), PTG refers to a *transformative* process by which one experiences positive changes (i.e., extending beyond sound adjustment) as a result of his or her struggle in trauma's aftermath.

As another critical distinction, PTG does not equate to positive adjustment (e.g., Kilmer & Gil-Rivas, 2008). That is, those reporting PTG may actually report less emotional well-being

or positive adjustment than those evidencing resilience (Calhoun & Tedeschi, 2006; Cryder et al., 2006; Tedeschi et al., 2007). Indeed, consistent with theoretical models in which distress is viewed as necessary for catalyzing the growth process and, perhaps, maintaining growth, multiple authors have noted that PTG and distress (including posttraumatic stress symptoms, PTSS) may co-exist (e.g., Kilmer et al., 2009; Laufer & Solomon, 2006; Salter & Stallard, 2004; Shakespeare-Finch & Lurie-Beck, 2014; Tedeschi et al., 2007). Furthermore, some research supports a curvilinear 'inverted U' relationship between PTSS and PTG (Levine et al., 2008; see Shakespeare-Finch & Lurie-Beck, 2014 for a detailed consideration of the relationship between PTSD and PTG). These findings suggest that PTG is not consistent with most conceptualizations of resilience in children and youth.

Furthermore, early returns suggest that PTG and resilience are distinct processes. One study warrants particular mention. In their study involving 7-10 year olds affected by Hurricane Katrina, Kilmer and Gil-Rivas (2010a) drew from the resilience literature (e.g., Hoyt-Meyers et al., 1995; Luthar et al., 2000; Masten & Coatsworth, 1998) and existing PTG theory (e.g., Kilmer, 2006) to hypothesize that caregiver warmth and perceived competence would relate positively to PTG. Contrary to expectations, caregiver warmth was not related to PTG at either time point, and perceived competence was correlated negatively with PTG at baseline and did not contribute to PTG at follow-up, roughly 22 months post-disaster (Kilmer & Gil-Rivas, 2010a). In considering these results, Kilmer and Gil-Rivas (2010a) hypothesized that resilience and PTG may reflect different paths to adaptation, influenced in large part by the resources (i.e., both intraindividual and those in the larger environment) a youngster is able to marshal. Put another way, the findings suggest that, while those factors may promote resilience under conditions of major life stress, they may actually reduce the likelihood of PTG (Kilmer & Gil-

Rivas, 2010a). Warm, supportive caregiving and positive views of one's competence may reduce the degree to which youngsters perceive their assumptive worlds as "shattered" or find themselves shaken in trauma's aftermath, thereby limiting the ongoing distress (and intrusive ideation) that appears be critical to the PTG process (Hafstad et al., 2011; Jensen, Dyb, & Nygaard, 2009). Supporting this notion further, these researchers reported significant negative associations between perceived competence and both intrusive rumination and baseline PTSS.

What Does the Research Tell Us?

Investigations have largely focused on the degree to which children and youth evidence PTG, with a small proportion of studies helping identify factors related to individual differences in PTG (Cryder et al., 2006; Kilmer & Gil-Rivas, 2010a; Kilmer et al., 2011; Salter & Stallard, 2005; see Meyerson et al., 2011 for a review). On the basis of this work, ongoing distress and rumination (both intrusive and deliberate) seem important (Kilmer & Gil-Rivas, 2010a; Kilmer et al., 2009). The evidence highlights the key role that rumination – both negative, distressing thoughts and deliberate, repetitive thinking – may play. As one case in point, deliberate rumination was the only significant factor in a baseline model (which also included caregiver positive reframing coping advice, perceived competence, and intrusive rumination) predicting PTG one year after Hurricane Katrina (Kilmer & Gil-Rivas, 2010a). Nearly 2 years post-disaster, baseline intrusive rumination was the lone significant predictor of PTG in the final model.

The picture is more mixed for self-system variables, i.e., those that reflect one's self-schema or internal beliefs and perceptions about oneself, such as future expectations, perceived competence, self-esteem or global self-worth, and coping competency beliefs (e.g., Cryder et al., 2006; Kilmer & Gil-Rivas, 2010a). Some research has pointed to the possible role of positive future expectations (Kilmer et al., 2006), which may influence how children and youth perceive

and respond to an event as well as the degree to which they sustain effort in grappling with the event, its aftermath, and its potential meaning (Kilmer, 2006; Wyman, Cowen, Work, & Kerley, 1993). To date, there is little support for perceived competence (Kilmer & Gil-Rivas, 2010a), and few studies have investigated the role of coping competency beliefs; those that have reported contrasting findings (Cryder et al., 2006; Kilmer & Gil-Rivas, 2010a).

Social support appears relevant to the PTG process, though findings have been mixed and understanding of the role of caregivers in this context is still evolving (Meyerson et al., 2011; see also Cryder et al., 2006; Gil-Rivas & Kilmer, 2013; Kilmer & Gil-Rivas, 2010b; Kilmer et al., 2006; Salter & Stallard, 2005). There appear to be varying results related to the source of support (Meyerson et al., 2011), suggesting that support, whether familial (Kimhi, Eshel, Zysberg, & Hantman, 2009) or from teachers or peers (Yu et al., 2010), may be associated with PTG. In the end, the source of support may matter less than the specific nature of the support, the degree to which it matches the youngster's needs, or whether there are particular objectives to the support, such as concrete guidance around coping. While conceptually it would appear that support is a necessary component of post-trauma adaptation in general (Alisic et al., 2011) as well as the PTG process for children and youth, further work is needed to better understand the role(s) of caregivers and the kind of support that appears to foster PTG-like processes.

Figure 1 draws on the existing empirical literature and conceptualizations of PTG to frame a model of PTG in children and youth. Specifically, it illustrates hypothesized linkages among key constructs. Consistent with research to date, rumination variables are at the core, and the caregiving system is believed to play a supportive role (with caregivers' responses influenced by their own resources and functioning), contributing to more positive future expectations as well as greater levels of deliberate rumination and, in turn, PTG. Because the research base

testing the associations suggested by this model is limited, with minimal work examining these linkages over time, the figure does not include an explicit temporal component.

Unanswered Key Questions of Clinical Relevance

Although these first generation studies have laid groundwork upon which future research can build, several salient questions remain. Research must continue to identify the network of factors related to PTG and, of greater relevance, go beyond those foci to better understand the mechanisms of the PTG process and its implications for children and youth (Kilmer & Gil-Rivas, 2010a). For instance, while rumination (both deliberate and intrusive) appears key in the process, scant research has explored the association between both types of rumination and PTG (see Kilmer & Gil-Rivas, 2010a for an exception), and further work needs to elucidate the role(s) and timing of these ruminative processes. More broadly, while others have commented on the dynamic nature of PTG (Kilmer et al., 2009), additional research is necessary to ascertain the degree to which PTG changes, in presentation and process, over time.

Additionally, research is needed to investigate rigorously the most substantive ongoing question in the area (Kilmer & Gil-Rivas, 2010a): To what degree does PTG relate to youngsters' adjustment over time? Put another way, does the experience of PTG influence their developmental and/or adjustment trajectories? No study, for example, has documented a prospective link between PTG and long-term well-being or positive adjustment (e.g., increased positive mental health, positive affectivity, quality of life) or reported reduced trauma-related symptomatology (Kilmer & Gil-Rivas, 2010a; Salter & Stallard, 2004). This critical question has very real implications for determining the clinical relevance of PTG. Some findings have been suggestive; for example, Ickovics and colleagues (2006) reported that adolescents who reported higher PTG evidenced less emotional distress up to 12 and 18 months post-event, and Milam et

al. (2004) found a link between PTG and health-related behaviors. However, it is also necessary to go beyond typical mental health adjustment indicators to consider, for example, the degree to which child or youth reports of PTG are associated with their subsequent involvement in community service, their career choices, and their engagement in work to benefit others who have been affected by adversity. Future studies must employ: (a) a broader range of indicators of adjustment; (b) multiple respondents; (c) more data collection points, over a greater time period; (d) larger sample sizes; and (e) assessments of the network of variables thought to be related to the process, so that it is possible to explore developmental processes as well. The use of qualitative methodologies may help reveal developmental differences, by drawing on children's specific reports and experiences.

It bears mention that research in other contexts has identified factors that influence the sequelae experienced by children and youth following trauma, including qualities of the trauma (i.e., discrete event versus chronically traumatic context; exposure intensity/severity; known versus unknown perpetrator; nature of the trauma, whether reflecting a mass trauma event versus act(s) perpetrated by an individual, etc.; Manly, Kim, Rogosch, & Cicchetti, 2001; Martin, Cromer, DePrince, & Freyd, 2013; Norris et al., 2002; Shakespeare-Finch & Armstrong, 2010). However, findings in this area do not yet point to differences in PTG or PTG trajectories related to the nature of the traumatic experience. For instance, although research involving adults has described PTG in adult survivors of diverse childhood abuse experiences (e.g., Easton, Coohey, Rhones, & Moorthy, 2013; McElheran et al., 2012; Shakespeare-Finch & De Dassel, 2009), some writing in this area have speculated that some trauma may be "too intense and too devastating," overly taxing the child's resources and precluding the potential for PTG (see Kilmer, 2006). This research base has also not elucidated the effects related to multiple traumas

– children (and, in some cases, their caregivers) are typically asked about the worst thing that has happened or about a specific, identifiable trauma (e.g., a natural disaster, a road traffic accident). Little is known about the influence of events that occur subsequent to the trauma about which respondents report, or those that may have preceded the trauma of focus. As research in PTG continues to evolve, findings about the factors that influence PTG's trajectory or inhibit growth will hold relevance to researchers and practitioners alike.

Research with youth also needs to examine potential cultural differences in PTG, both in the mechanism(s) and the nature of the growth experienced. The extant research makes clear that culture plays a meaningful role in many aspects of traumatic events and their effects – what is perceived as stressful, the nature of the adverse events experienced, and how individuals respond to and cope with them may vary greatly across countries and cultures (e.g., Chun, Moose, & Croncite, 2006). Such variability raises questions regarding universal versus culture-specific aspects of PTG, and these have both methodological and practical implications; however, relatively few studies have used standardized measures to explore PTG in youth outside the U.S.

Notwithstanding those limitations, there are indications in the literature that PTG as well as potential underlying factors of the PTG process (e.g., social support and faith-based or religious frameworks, see Meyerson et al., 2011) are experienced and expressed differently across cultures. With regard to the experience and expression of PTG itself, studies with non-U.S. adults have typically found lower mean scores on the Posttraumatic Growth Inventory (PTGI), as well as individual items or dimensions that are not endorsed in the manner or degree observed in U.S. samples (e.g., Hafstad et al., 2010; Shakespeare-Finch & Copping, 2006). McMillen (2004) suggested that attention to the positive side of trauma may be more evident in the U.S. than in other contexts. As such, notwithstanding the clear heterogeneity of the U.S.

population, we would expect samples drawn from U.S. society to report more and different types of growth after adversity than non-U.S. samples. It may also be that the experience itself is similar, but that it is expressed differently. For instance, because the U.S. social context tends to promote children's self-expression more than, for example, Asian cultures (Cole, Bruschi, & Tamang, 2002), Asian children may express less PTG than children from or living in the U.S., though they may have equivalent feelings or perceptions of positive change.

So far, studies of PTG involving children and youth outside the U.S. have been conducted in Canada (Yaskowich, 2003), China (e.g., Yu et al., 2010), Israel (e.g., Kimhi et al., 2009, Laufer & Solomon, 2006; Laufer, Raz-Hamma, Levine, & Solomon, 2009), Japan (Taku et al., 2011), the Netherlands (Alisic et al., 2008), and Norway (Glad et al., 2013; Hafstad et al., 2010; 2011). It is important to note that these efforts have largely relied on translations or adaptations of measures of PTG originally developed in the U.S. (e.g., Kilmer et al., 2009), which may not adequately capture culture-specific elements of growth (Taku et al., 2011). Moreover, while there is variability in the PTG levels reported in these samples, it is difficult to draw definitive conclusions regarding cultural differences in PTG. This is consistent with work conducted among diverse populations within the U.S. That is, Meyerson et al.'s (2011) review describes five studies that examined the relationship between ethnicity/race and PTG; their findings were mixed – three studies found no meaningful differences, while one suggested higher levels of PTG for Latinos and European American youth compared to Persian youth, and another reported more growth for African American youth than their European American counterparts.

In considering cultural differences in the correlates of PTG in children and youth, several factors may be of importance. For example, the roles of community influences, including social support, can vary across cultures, and cultural factors can even influence the likelihood of growth

(e.g., a girl shamed and expelled from her family or community following sexual assault may hold a minimal chance of developing PTG). Other factors, which intersect meaningfully with culture, such as socioeconomic status, may also be relevant. For this article, two elements tied to culture warrant particular focus: the role of faith or religion, and the role of parenting.

Although multiple studies have found that youth who are religious report significantly higher levels of PTG than others (Laufer & Solomon, 2006; Laufer et al., 2009; Milam et al., 2004; Milam et al., 2005; Vaughn et al., 2009), there are differences in religiosity and faith-based beliefs across cultures. For example, many European countries have become increasingly secularized in recent decades (e.g., Hafstad et al., 2011). In turn, some Europeans may not see religiosity as an asset, helpful perspective, or form of strength (e.g., Znoj, 2005, as cited in Shakespeare-Finch & Copping, 2006, p. 367) and, as such, they may not view turning to formal religion as "a healthy adaptive process" (Shakespeare-Finch & Copping, 2006, p. 367). To that end, Znoj (2006, p. 183) has written that, "[a] religious belief may help to order life, but it may also hinder new experiences and challenges and [sic] that respect may even become maladaptive." The observed trend toward secularization in Europe may contribute to lower levels of reported PTG, particularly given that multiple common measures of the construct include spiritual growth among its core domains. For example, Hafstad and colleagues (2011) found that items from the Posttraumatic Growth Inventory for Children-Revised (PTGI-C-R) reflecting spiritual growth exhibited the lowest absolute means and seemed to contribute disproportionately to the relatively low total score mean in a sample of Norwegian youths. In contrast, children exposed to Hurricane Katrina along the U.S. Gulf Coast reported the most absolute growth on these items (Kilmer et al., 2009). The latter finding may reflect the context in which the children were raised, as this region is largely regarded as highly religious and thus

children could have been influenced by faith-based explanations or encouragement of faith-based coping (Kilmer et al., 2009). PTG and its manifestation may vary across cultural groups as a function of their religiosity (versus secularism), prime faith-based values, and broader cultural values that align with many faiths (e.g., sense of meaning of suffering, compassion, importance of self / individual vs. community).

Cultural differences in caregiver behavior may also influence children's reports of PTG and the nature of the growth they experience, as caregivers play a critical role in the adaptation of children and youth following trauma. During challenging times, the manner in which parents discuss the experience(s) with their children affects children's integration of the experience as well as the specific problem-solving and coping strategies they employ (Haden et al., 1997; Salmon & Bryant, 2002). In a similar vein, conversations children have with their parents about their experiences have important implications for the way they appraise and evaluate a particular event (Fivush, Hazzard, Sales, Sarfati, & Brown, 2003). Broadly, parental responses to children's narratives and self-disclosure are central to how children express and regulate emotions and employ coping strategies (Eisenberg, Cumberland, & Spinrad, 1998). Of salience here, the manner in which parents discuss emotions and events varies across cultures. For example, European American mothers tend to focus more on explaining children's feeling states, while Chinese mothers tend to take a directive role emphasizing discipline and conduct when discussing children's experiences (Wang & Fivush, 2005). These differing foci may also influence the way in which parents and children shape narratives around PTG. All in all, there are several indications that culture influences PTG in children; however, the literature to date is insufficient to appreciate these differences fully.

Because many unanswered questions persist, clinicians should be aware of potential

cultural differences in PTG. Although some authors have asserted that PTG is universal (Weiss & Berger, 2011), the literature raises a number of considerations for clinical practice. Available evidence suggests that children living in the U.S. report higher levels of PTG than those in other countries. That said, these early findings do not necessarily mean that children from other countries experience less PTG; rather, they may reflect a need for culturally-specific assessment of PTG (Taku et al., 2011). Until more is known, clinicians, consistent with more general calls for culturally competent practice, must be aware of and responsive to potential culture-specific meanings and manifestations of trauma experiences, distress, and PTG (Weiss & Berger, 2011).

Going forward, the development and use of culturally appropriate instruments could help practitioners meaningfully assess growth. The translation and validation of one instrument in different cultures (for instance, the PTGI-C-R, Kilmer et al., 2009) would make findings more comparable across cultures; however, it could be argued that instruments grounded in and informed by specific cultural contexts need to be developed. Qualitative explorations of PTG across age and cultural groups could guide the development and refinement of such scales.

Do the Early Findings Point to Applications?

While not an "intervention," facilitating PTG has been acknowledged as a legitimate aim in work with those who have experienced trauma (Calhoun & Tedeschi, 1999, 2013; Ickovics et al., 2006; Kilmer & Gil-Rivas, 2008; Linley & Joseph, 2004; Tedeschi & Calhoun, 2008). Notwithstanding the notable unanswered questions, research has supported several key elements of the PTG process. The following factors (all with at least some support in the literature; see Meyerson et al., 2011) may hold relevance for clinical applications: deliberate, constructive rumination; positive future expectations, hope, and optimism; coping guidance and, in particular, positive reframing coping advice (a factor that may be especially important for younger

children); active coping; and social support.

Because this research area is still in a generative stage, applications need to be framed cautiously. As described by others (Tedeschi & Calhoun, 2008; Tedeschi & Kilmer, 2005), the notion of facilitating PTG does not reflect a "technique" or step-by-step approach; rather, it is a dynamic process that plays out over time. In turn, practitioners can create an appropriate environment to foster PTG and serve as a "guide" (see Tedeschi & Calhoun, 2008). That said, although this article focuses on research-supported elements for professionals' work with those who have been exposed to trauma, the intervention of clinical professionals is not necessary to support the PTG process. Indeed, some findings in the child literature suggest that proximal (i.e., direct) influences beyond professional clinicians may contribute to the PTG process; specifically, parents and other supportive adults can play an important role (Kilmer & Gil-Rivas, 2008, 2010a). Moreover, children could benefit meaningfully (perhaps even reducing the likelihood of posttraumatic distress and symptomatology and, in turn, PTG) from systematic efforts to modify community norms and understanding and improve supportive and humane responses across domains (e.g., in schools, one's neighborhood, one's faith-based community).

Clinical Implications of PTG Work: Theory to Frame the Discussion

In considering the PTG process, potential approaches to facilitating PTG clinically, and work with those who have experienced trauma, it is necessary to ground the discussion in theory. Bronfenbrenner's (1977) ecological systems theory (revised as the bioecological model, Bronfenbrenner & Morris, 2006) is particularly well-suited. In his view, development and adaptation occur within the context of "nested" levels that mutually interact and influence one another, with proximal factors (e.g., family milieu, peer group, school personnel) directly influencing the child and distal factors (e.g., neighborhood and community characteristics)

indirectly influencing the child through an impact on his or her larger ecology. In this theory, behavior, development, and well-being are influenced by the interactions within and among the multiple levels of a child's contextual world.

These ideas have implications for both research and interventions (Farmer & Farmer, 2001; Kilmer & Gil-Rivas, 2010a). Put simply, in work with youth, one cannot lose sight of context – it is critical when considering issues of post-trauma adaptation or, more broadly, adjustment (Kilmer & Gil-Rivas, 2010a, 2010b). For instance, social and contextual factors (e.g., available support, culture, socioeconomic status, faith, family history) may each carry weight and contribute to one's reactions, responses, risks, and recovery following trauma. Because trauma has the potential to influence multiple levels of a youngster's ecology, intervention must be equally comprehensive in scope (Farmer & Farmer, 2001; Kilmer & Gil-Rivas, 2010b). In turn, regardless of the nature of the trauma, the setting, or the intervention, 'one size does not fit all,' and practitioners must be mindful of "correlated constraints," or clusters of factors that support positive developmental paths or problematic trajectories (e.g., Farmer & Farmer, 2001; Kilmer & Gil-Rivas, 2010b); otherwise, interventions will be limited in their impact and reach.

Attending to Context: What Can Practitioners Do?

Practitioners would be well-served by taking into account the multiple influences at play and, in particular, attending to the caregiver-child dyad. Parents and caregivers can have a profound influence on children's adaptation post-adversity through: monitoring, organizing, and regulating youngsters' contact with the external world; providing nurturance and emotional support; assisting with interpreting and understanding what has taken place; sharing their perspective; and guiding or modeling responses and coping strategies (Gil-Rivas, Holman, & Silver, 2004; Kilmer & Gil-Rivas, 2008; Kilmer & Gil-Rivas, 2010a; Masten, Best, &

Garmezy,1990; Masten & Coatsworth, 1998; NCTSN, n.d.)[1]. In turn, practitioners can support and guide caregivers' efforts to help their children by educating them about youngsters' reactions to trauma, partnering with them to develop strategies that may foster discussion, and helping them feel efficacious and comfortable with their attempts to support their children (Gil-Rivas et al., 2004; Kilmer & Gil-Rivas, 2008; NCTSN, n.d.). Indeed, intervening at multiple levels and considering context are empirically-supported strategies for facilitating positive outcomes post-trauma that, along with other clinical techniques described below, comprise well-established interventions for children.

Work with Children, Youth, and Caregivers Following Trauma

Given that approaches to facilitating PTG among children and youth are emerging, it may be fruitful to seek direction from the broader trauma literature. Indeed, those mindful of PTG and the potential for fostering it would approach their clinical work as they would in trauma-focused work more generally. That is, critical early steps would be similar to many post-trauma approaches in which clinicians seek to create an accepting and safe atmosphere and take steps to aid youngsters in re-establishing a sense of normalcy, safety, and structure (Kilmer & Gil-Rivas, 2008; NCTSN, n.d.). In such approaches, clinicians are open to discussing the trauma and feelings associated with it; listen actively and acknowledge the difficulty of the situation; provide support; help youth reappraise the experience and regulate their emotions; and assist them in their efforts to cope, providing guidance about and even modeling the use of adaptive coping strategies (Calhoun & Tedeschi, 1999, 2006; Gil-Rivas et al., 2004; Kilmer, 2006; Kilmer & Gil-Rivas, 2008; NCTSN, n.d.; Tedeschi & Kilmer; 2005; Tedeschi & Calhoun, 2008).

[1] While the critical role of parents has been established in diverse clinical and applied developmental research studies with varying samples following adversity, it is important to note that, in some cases, caregivers may have perpetrated the trauma or may not have intervened despite ongoing trauma affecting the child. The PTG literature has not yet developed sufficiently to include studies that explore this phenomenon in child and youth samples.

In recent years, several interventions designed to reduce distress following trauma have been described, many of which include these common steps or characteristics. In fact, while existing treatments for PTSS do not specifically aim to promote growth *per se*, many standard treatment components directly or indirectly support proposed pathways (e.g., deliberate rumination, caregiver support, positive reframing, focusing on the future) to PTG. Furthermore, these evidence-based interventions provide useful templates for effectively integrating temporal, developmental, and cultural issues in the design of clinical interventions for facilitating PTG.

The weight of the evidence supports cognitive-behavioral approaches to treating PTSS in children and youth (Dorsey, Briggs, & Woods, 2011; Kowalik, Weller, Venter, & Drachman, 2011). A recent meta-analysis of existing treatments for PTSS among youth indicated that there was strong support for the effectiveness of Cognitive Behavioral Therapy (CBT) while there was less empirical evidence for other approaches (Wethington et al., 2008; also see Kowalik et al., 2011). For instance, recent reviews (e.g., Dorsey et al., 2011; Silverman et al., 2008) have found that Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT) met the Chambless criteria (e.g., Chambless & Hollen, 1998) for a *well-established* treatment for trauma. Although TF-CBT was originally designed for and has been primarily studied with survivors of childhood sexual abuse (Cohen, Deblinger, Mannarino, & Steer, 2004; Deblinger, Lippman, & Steer, 1996), evidence also supports its effectiveness with youths exposed to terrorist attacks (CATS Consortium & Hoagwood, 2007), physical abuse (Kolko, 1996; Kolka & Swenson, 2002), and childhood traumatic grief (Cohen, Mannarino, & Deblinger, 2006). Specifically, TF-CBT is associated with improvements in social competence and reductions in PTSS, depression, anxiety, and behavior problems (CATS Consortium & Hoagwood, 2007; Cohen et al., 2004; Jensen et al., 2013). The paragraphs that follow describe specific components of TF-CBT (see Cohen et al., 2006), though

many are widely accepted practices that have been incorporated in other interventions (see, e.g., Dorsey et al., 2011). They are noted briefly here because these steps are potentially salient for clinicians interested in supporting PTG in their work with youth post-trauma.

In work with children and youth, psychoeducation is an essential early task; it can address children's confusion about the nature of the trauma and questions about their safety (Cohen et al., 2006). Subsequently, youths are taught behavioral skills (e.g., progressive muscle relaxation, deep breathing) for coping with anxiety and to prepare them to interact with potentially distressing trauma memories later in treatment. Children are also taught to identify a range of emotions, label their affective experiences, express emotions appropriately, and distinguish emotions from thoughts. A basic CBT model linking thoughts, feelings, and behaviors is presented and used to demonstrate the utility of cognitive coping (e.g., reframing, positive self-talk); such steps hold clear relevance to PTG. With this as a foundation, youths are encouraged to produce a trauma narrative that chronicles specific events, thoughts, and feelings that were experienced during the trauma. Creating a trauma narrative is considered a crucial exposure technique that also allows clinicians to identify and eventually correct cognitive distortions. Similarly, *in vivo* mastery of trauma reminders is promoted through graduated exposure to reduce avoidance of non-threatening stimuli.

Caregiver involvement in treatment is invaluable, as research has shown that approaches that do not include caregivers are less effective than those that do (e.g., Deblinger et al., 1996). Caregiver sessions entail teaching many of the same skills taught to youths, as well as general and trauma-specific parenting skills. Sessions are designed to aid caregivers as they cope with their own reactions to the trauma and equip them to support children's coping at home (e.g., providing accurate and reassuring information, modeling and reinforcing coping skills). Near the

conclusion of treatment, joint child-caregiver sessions are conducted in which children are encouraged to share their trauma narratives with caregivers, questions can be discussed, and measures can be implemented to enhance safety and prevent future trauma exposure. Of relevance, elements of these components can be adapted to their increase cultural and developmental relevance (see Kerig, Sink, Cuellar, Vanderzee, & Elfstrom, 2010).

Given TF-CBT's empirical base, burgeoning approaches to facilitating PTG with youth (e.g., Kilmer & Gil-Rivas, 2008) may benefit from drawing on its components. Clinicians may also look for guidance from other interventions with growing support that have implemented cognitive-behavioral strategies with success using group formats in school- and community-based settings (Chemtob, Nakashima, Hamada, & Roitblat, 2002; Salloum & Overstreet, 2008; Stein et al., 2003). Intended outcomes may differ fundamentally between interventions designed to reduce PTSS and those seeking to promote PTG; however, their shared goal of fostering adaptive post-trauma responses contributes to overlap between hypothesized mechanisms of change. For example, providing accurate information and answers to youths' questions during psychoeducation can be an early step in promoting reassembly and stabilization of their core beliefs, processes implicated in both the reduction of distress and development of PTG. Furthermore, coping skills training, caregiver involvement, and carefully paced activities that encourage productive rumination are supported by the PTG literature as potential intervention targets. Overall, such steps can also lay groundwork for later discussions of potential gains and losses experienced as well as one's struggle as a result of the trauma (Tedeschi & Kilmer, 2005).

Assessing and Facilitating PTG

In clinical or supportive work with children and youth, professionals can play an important role not only in aiding youth in their efforts to adjust, but also in creating an

appropriate environment and context to facilitate PTG. Clinical roles can take different forms, from assessment to intervention or treatment.

Although assessment of PTG was the focus of a recent article (Clay et al., 2009), other measures have emerged since the time of that review, including a brief scale adapted for use both in clinical settings and research contexts. Specifically, the PTGI-C-R is a revision of the 21-item PTGI-C used by Cryder et al. (2006). The new measure (Kilmer et al., 2009, p. 253) includes open-ended items to assess perceived changes in youngsters' lives and themselves since the trauma (e.g., "Sometimes I act nice to people when I think of times when I was sad and I don't want them to feel that way"), followed by 10 child-completed quantitative items that assess change across *New Possibilities* ("I now have a chance to do some things I couldn't do before") , *Relating to Others* (e.g., "I feel closer to other people (friends or family) than I used to"), *Personal Strength* (e.g., "I have learned that I can deal with more things than I thought I could before"), *Appreciation of Life* ("I know what is important to me better than I used to"), and *Spiritual Change* (e.g., "My faith (belief) in God is stronger than it was before"). The scale's language and response metric were simplified for children, and findings regarding its reliability and validity were promising and have been reported elsewhere (e.g., Kilmer & Gil-Rivas, 2010a; Kilmer et al., 2009; the latter article includes the measure as an appendix). The measure has been used (or translated for use) in multiple countries, including the U.S., India, Norway, the Netherlands, China, and Japan (e.g., Alisic et al., 2008; Hafstad et al., 2011; Taku et al., 2011; Yu et al., 2010).

Beyond assessment, some practitioners may have interest in taking steps to facilitate PTG. Proximal influences such as parents, school personnel, and mental health professionals can aid youth in their efforts to adjust, supporting them in trauma's aftermath. Practitioners can work

to build on youths' resources, support their active coping, and help them grapple with their new reality. They can play a key role in helping children and youth develop a narrative of what happened and, in those discussions, listen for youths' representations of changes in their beliefs about the world and assist as they question and try to understand them (see Kilmer & Gil-Rivas, 2008; Tedeschi & Kilmer; 2005). In noticing statements about perceived positive changes that may be consistent with PTG, practitioners can prompt in low-key ways. For instance, as Kilmer and Gil-Rivas (2008, p. 19) note, one could follow-up, "You mentioned earlier that, in the face of all of this, you never realized you could be this strong – can you tell me more about this?" It is, of course, critical to consider the timing of such steps or statements, judging when it may be useful (and acceptable) to draw attention to perceived positive changes (Kilmer & Gil-Rivas, 2008; Tedeschi & Kilmer; 2005; Tedeschi & Calhoun, 2009). In doing so, practitioners can recognize and reinforce these notions, consider ways to frame both difficulties and possible benefits, and discuss and integrate benefits into the youth's narrative (Tedeschi & Kilmer, 2005).

Throughout these discussions, it is important to support youngsters' capacities to maintain positive views of themselves and their futures (Kilmer, 2006; Kilmer & Gil-Rivas, 2008). In fact, as one recognizes, reinforces, and helps build on youth strengths and competencies, particular attention can be paid to those that may be relevant to growth and/or those that appear important for positive adaptation (and symptom reduction), such as positive future expectations, optimism, hope, and efficacy (Gil-Rivas, Hypes, Kilmer, & Williams, 2007; Kilmer, 2006; Kilmer, Gil-Rivas, Hypes, Roof, & Williams, 2007). Beyond supporting children's self-system resources, the available data support the potential benefit of working to restructure youngsters' appraisals of trauma and foster productive rumination. This ruminative process appears to be central to PTG's development and can also contribute to the development

of children's post-trauma narratives.

The Application of These Ideas: The Example of Judi's House

Judi's House (JH) is a nonprofit, community-based grief center providing comprehensive assessments and care for bereaved children and youth aged 3-25 years, as well as their caregivers. The organization uses interventions tailored to diverse needs – including individual, family, and group modalities – with the overarching goal of promoting resilient adaptation and growth following trauma and loss. Most families at JH participate in their primary intervention, Pathfinders (Judi's House, 2012), in parallel but separate groups for children and their caregivers. Youth are further divided by developmental level, in order to facilitate normalization and decrease isolation by supporting connections among bereaved peers of similar ages. This ten-week, modular intervention integrates diverse practices drawn from cognitive-behavioral, family systems, trauma, and attachment theories, including narrative, experiential and expressive approaches, such as art therapy. Findings reveal that a majority of the individuals who have sought JH services have experienced a traumatic loss and report elevated levels of distress, including significant traumatic grief reactions (Griese, Giusto, & Silvern, 2012). In turn, the grief-focused Pathfinders curriculum intentionally integrates components common to evidence-based trauma interventions, including TF-CBT (e.g., Goodman et al., 2007; Layne et al., 2001).

Across interventions at JH, clinical staff members attempt to restore feelings of security and provide social support, helping youth recognize that, notwithstanding the pain of their loss, they are not alone. This is done by fostering support within the intervention groups, as well as through promoting supportive connections with family, friends, caring adults and organizations outside of JH. The interventions are also designed to help promote emotional regulation and provide psychoeducation about trauma and loss, grief reactions and responses, and diverse

positive coping strategies. To that end, the staff supports the development of youths' trauma narratives by providing children and adolescents multiple modalities for sharing their experiences and expressing themselves safely. Doing so in the context of the group can help youth feel connected and supported and allow them to draw from the collective experience and wisdom of others. Moreover, the peer support, validation, and normalization experienced in the groups can provide a fruitful environment for helping youth process and integrate the loss into their lives, so that they can feel more hopeful about the future, experience compassion and caring, and develop empathy for others' circumstances and pain.

Targeting cognition and deliberate, productive rumination constitutes another core objective of the JH interventions. The clinicians help identify misconceptions and aversive thoughts, providing opportunities for youth to practice reframing or replacing them with more hopeful and helpful thoughts, thereby restructuring their appraisals of the trauma. Consistent with some notions believed to be central to the PTG process, clinicians at JH attempt to foster the productive rumination process by helping youth to reflect on their experiences of trauma and loss—both what happened *and* their subsequent reactions – and to share this verbally or through other representations within a safe and supportive context. Such activities are thought to help decrease avoidance of the trauma and the numbing children may experience, and can also help youth recognize successful ways in which they have coped or adapted. These activities contribute to facilitating thinking and talking about the death or trauma over time, and also promote ongoing dialogue within the family system. In fact, increasing family communication and decreasing avoidance and emotional inhibition can be a positive posttraumatic change with a lasting impact for the entire family system.

Individual differences in youths' capacities to engage in this kind of supportive reflection

are salient and structured activities and discussion can provide scaffolding to help facilitate the process. For instance, for younger children, it can be helpful to read Holmes' (2000), *A Terrible Thing Happened,* a story about a raccoon who had a traumatic experience and cannot get it out of his mind. Until he shares his story, he struggles with somatic issues, anger, and concentration difficulties. After reading the story, children can be encouraged to draw what they believe could be in the dark 'cloud' above the raccoon's head in the book—something that happened to them or what might have happened to the raccoon. Afterwards, children can draw in another, lighter cloud a "Happy Place" that the raccoon could imagine to help himself feel calm, safe, or relaxed when overwhelmed or upset by reminders of the "terrible thing" (i.e., trauma or loss); this can be followed by practicing guided imagery in the session and encouraging its use at home.

Consistent with an ecological systems perspective, JH interventions also support the family system and include a parallel curriculum in groups with parents and caregivers, a critical element given that caregivers and other family members are prime proximal influences on youth. The caregiver-focused curricula help adults in accessing and receiving the support they need for their own grief in addition to providing psychoeducation about parenting a grieving child. Caregivers learn about the challenges faced by bereaved children and youth of varied ages, how they can model coping and sharing of feelings, and how to help their youngsters make meaning of the loss and restore developmental progression. These steps are significant because caregivers help children form a narrative of what has happened and what life will look like going forward.

In the context of their interventions, JH clinical staff use activities to foster PTG or encourage youth to consider ways in which they may have changed or grown since the death. For instance, towards the end of Pathfinders, participants are given opportunities to think about ways that they may have grown since the death. Possibilities might include: increased empathy for

children who are also bereaved or in other difficult situations; greater ability to express their emotions through art, music, writing, or talking; perceptions that they are stronger than they thought and are able to cope with difficult challenges; a growing appreciation of family and friends; and/or greater recognition that they can turn to others for support. In addition, while attending sensitively to the timing, youngsters can be supported in making meaning of the loss by taking something terrible that has happened and finding a way to bring about something positive because of it. For example, they can be assisted in identifying ways to memorialize or honor the person who died, such as being kind to people who are different or struggling, donating hair to cancer survivors, or volunteering in one's community. Table 1 summarizes other activities that have been employed at JH to support the PTG process.

Clinical Applications: Some Concluding Thoughts

Informed and guided by the empirical literature, this article describes evidence for the PTG construct in children and youth, highlights major findings and unanswered questions, and describes specific steps that professionals may take to facilitate growth in youngsters who have been exposed to trauma. It is clear that methods many professionals already employ can help those affected by trauma in re-working their models of the world and, perhaps, in recognizing and even building upon some of the gains borne of their struggle. Indeed, many of the steps described here are consistent with post-trauma treatment approaches; the difference relates largely to more actively and pointedly listening for indications that the individual perceives benefits, has experienced positive change, or may be ready to consider potential positives that have resulted from the trauma and the circumstances in its aftermath (see Tedeschi & Kilmer, 2005).

It is also critical to underscore that those working clinically *must* be mindful about the

steps taken and the pacing of any work to foster PTG. Attending to strengths, building upon child resources, and guiding coping may take place early in therapy, but, given the sensitivity of the experience and the weight of the post-trauma reality, questioning about possible benefits should not occur at the outset (Kilmer & Gil-Rivas, 2008; Tedeschi & Kilmer, 2005). Even over time, the notion of PTG may not be welcomed by some youth and caregivers, and clinicians and others must be sensitive to that fact. It is crucial that professionals do not try to push or "sell" the notion of growth, or inquire about positive changes too early (Tedeschi & Kilmer, 2005). It is also important that children are not left to believe that they are lacking something or something is wrong with them if they do not evidence growth (Glad et al., 2013). Nonetheless, facilitating PTG is consistent with broader-based efforts to build on youths' resources, support their active coping, and help them negotiate and navigate the changes in their world following trauma (Kilmer & Gil-Rivas, 2008; Tedeschi & Calhoun, 2008; Tedeschi & Kilmer, 2005).

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Table 1. Selected activities employed at Judi's House to foster PTG or encourage consideration of growth and change in children and youth experiencing bereavement.

• *After the Storm, Comes a Rainbow* ○ Youth presented with a drawing of a storm cloud with a rainbow ○ Participants encouraged to write, draw or talk about the hardest parts of their loss/trauma experience in the storm cloud, adding lightning or rain if desired ○ In the rainbow stripes, they can write or draw ways they got through the experience or ways they grew during this difficult time ○ At the bottom of the rainbow, they can draw or write how they look or feel now, or what they hope will come in the future
• *As I Grow…* ○ Participants provided with a picture of a blank tree trunk with roots and the beginnings of tree branches; alternatively, can trace arm and hand and use that as the shape of the tree trunk and limbs or draw their own tree ○ Participants can write in the roots people and/or things that have kept them grounded or safe ○ Participants draw/write about experiences and people that have shaped and affected their growth along the tree trunk, including trauma and loss experiences (e.g., with carvings, holes) ○ Along branches they can write what they hope to do with their lives, ways they want to honor the person who died, or detail the paths or branches that will help them reach their goals (e.g., in leaves, fruit, etc.)
• *Helping Hand* ○ Children trace their hands and write/draw a message to other children to reflect on their own growth and 'give back' to others by sharing their wisdom (e.g., something they have learned during their grief journey; words of hope, encouragement, or advice)