

Traumatic Brain Injury and Grief: Considerations and Practical Strategies for School Psychologists

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Abstract Traumatic brain injury (TBI) can result in a range of social, emotional, neurological, cognitive, and behavioral outcomes. If these outcomes are significant, family members and the individual who has sustained the TBI may struggle with accepting the effects of these deficits. They may grieve over disrupted family relationships, roles, and routines which can become a factor within the school setting. School psychologists are in a unique position to provide appropriate, short-term, school-based, TBI-related psychological grief counseling and support services designed to assist affected children in adjusting and succeeding in the school setting post-TBI. This paper will discuss evidenced-based strategies adapted from allied disciplines (e.g., education, medicine) that can enhance school psychologists' ability to effectively address grief associated with TBI. Specifically, interventions designed to address the unique factors associated with ambiguous loss will be discussed.

Keywords School psychologist · TBI · Grief · Ambiguous loss · School-based counseling

“Brain Injury affects the whole family”
Brain Injury Association of America

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Each year in the US approximately 1.4 million individuals over the age of 20 and roughly 960,000 individuals between the ages of 0 and 19 will sustain and survive a traumatic brain injury (TBI; Coronado et al. 2012, 2014; Faul et al. 2010). Further, it is estimated that an additional 1.2 million individuals of all ages will visit a physician's office or outpatient department with TBI-related diagnosis (Coronado et al. 2014). These are civilian estimates only and do not include individuals who are treated and released from hospital emergency departments or those who fail to seek medical assistance (Chesire et al. 2011). The Defense and Veterans Brain Injury Center (DVBIC 2014) reports that between 2000 and 2014, approximately 294,000 service members worldwide received a TBI, with less than 20 % of these occurring in a deployed setting.

The majority of all individuals who sustain a TBI (80–90 %) will receive a mild TBI (mTBI) and the remainder will receive a moderate or severe TBI (Bigler 2012; Coronado et al. 2012; Corrigan et al. 2010; DVBIC 2014). It is estimated that over 43 % of the roughly 235,000 individuals in the USA hospitalized each year as a result of their TBI will continue experiencing a related disability 1 year postinjury (Corrigan et al. 2010). In addition, approximately 15–20 % of individuals who sustained an mTBI will experience significant neurocognitive, neurobehavioral, and neurophysiological deficits beyond 3 months postinjury (Andelic 2012; Yang et al. 2014).

When an individual sustains a TBI, family homeostasis can be altered overnight. As with many family-focused traumatic events with acute onset, there is an intense period of time in which the mission and functioning of the family unit is disrupted (Matthews et al. 2012). Initially, extended family members, friends, and social support groups may offer assistance to help stabilize parents and children, but at some point this additional support ends (Matthews et al. 2012), and the family unit must work independently to return to its mission: raising children. Unlike many crisis events that disrupt families but do not necessarily change the expectations and

responsibilities of family members (e.g., destruction of the family dwelling), when a TBI occurs, these expectations and responsibilities are altered by the inability of the injured family member to function at preinjury levels. This is similar to what happens to a family when there is a death of a family member. Further, the continued mental and physical health costs associated with ongoing TBI-related treatment may add additional needs to the family.

If provided at all, mental health counseling, including grief counseling, begins in the medical or rehabilitation setting; however, it often discontinues upon discharge (Jacobson and Butler 2013). When continued community-based grief counseling is needed beyond discharge, it may or may not be provided and will likely be contingent upon perceived need, the availability of health insurance, and access to transportation and services. School psychologists are well-positioned and generally well-trained to provide basic psychological grief counseling and supportive services to children and families within the school setting. In fact, according to the National Association of School Psychologists (NASP) service delivery model (2010a), training standards (2010b), and credentialing standards (2010c), providing counseling interventions in schools is deemed one of the basic competencies of school psychologists. For example, the Model for Comprehensive and Integrated School Psychological Services (NASP 2010a) states that school psychologists are expected to “provide a continuum of developmentally appropriate mental health services, including individual and group counseling...” (p. 6) within their role as direct and indirect service providers to “children, families and schools” (p. 5). Additionally, in their role as a “preventive and responsive” (p. 6) service provider, school psychologists are expected to “provide direct counseling...for students who experience mental health problems that impair learning and/or socialization” (p. 7). These expectations are corroborated by the training standards that require NASP-approved graduate programs to provide students with competencies as well as the NASP credentialing standards that recommend that state agencies assess for competencies in these areas. Furthermore, obstacles such as insurance and access are not issues in schools; consequently, for those needing ongoing grief counseling support, the school often becomes the setting for receiving such services and school psychologists may be asked to provide grief counseling support. They may also volunteer to provide these services. Understanding grief as it relates to TBI can aid in the provision of counseling and support services within the school setting to children who have sustained a TBI, their siblings, and their families.

This article will briefly review the consequences of TBI, review the effects of TBI on families, briefly discuss grief as it applies to TBI, discuss the role of school psychologists, provide examples of grief intervention programs that may be adapted for TBI, and discuss implications for school psychologists.

TBI Consequences

TBI severity is classified along a continuum of mild (mTBI), moderate, and severe with the majority of cases falling within the mTBI classification (Langlois et al. 2006; Lezak et al. 2012). For the majority of individuals sustaining an mTBI (including concussion), the neurocognitive, neurobehavioral, and neurophysiological effects are short-lived, with significant improvement occurring within 3 months (Bigler 2012; Toledo et al. 2014). However, a small number of individuals will continue to experience subjective, poorly defined somatic, cognitive, emotional, and physical symptoms beyond 3 months postinjury; in some cases for years (Andelic 2012; Dean and Sterr 2013; Yang et al. 2014). These symptoms can include, but are not limited to: difficulty with attention and concentration, headache, slowed processing, depression, anxiety, irritability, fatigue, and sleep disturbance. Because these subjective, poorly defined symptoms overlap with neuropsychiatric and medical conditions, their etiology is controversial and often considered to be psychiatrically based (McNally et al. 2013); however, there is emerging neuroimaging evidence to suggest there may be a physiological basis (Bigler 2013). Regardless of the controversy, a portion of people with an mTBI will experience long-term consequences that will affect their daily functioning.

The neurological, cognitive, emotional, social, and behavioral consequences of moderate and severe TBI are highly correlated with injury severity and can last from months to a lifetime (Lezak et al. 2012). Table 1 presents an overview of common outcomes of TBI. This information is provided to contextualize the issues faced by injured individuals and some of the alterations that may occur and persist. These alterations may significantly impact functionality or quality of life at home, school, and work, which may then instigate a grief response for the loss of prior functioning and impaired relationships among the injured person, family, and friends.

Effects of TBI on Families

Research suggests that living with a child or adult family member who has sustained a TBI can create substantial amounts of stress for primary caregivers (e.g., worry, disruption in routine; concerns about the future) and may lead to significant caregiver mental health issues that further complicate injury recovery (e.g., depression; Aitken et al. 2009; Calvete and Lopez De Arroyabe 2012; Martin 2012). Additionally, caregivers who perceive higher levels of social support have reported feeling less burdened by the stress associated with caregiving, better able to cope with caregiving, and more satisfied with caregiver responsibilities (Hanks et al. 2007).

Table 1 Outcomes of TBI by Domain

Domain	Symptoms/deficit areas
Neurological/physical	Headaches Disturbances in sleep/wake cycles Seizures Sensory-motor impairments Light and sound sensitivities Dizziness Blurred vision
Cognitive	Decreased attention Decreased concentration Deficits in auditory processing Deficits in executive functioning (such as multi-tasking and inhibition) Difficulties with word retrieval Deficits in working memory Excessive distractibility
Emotional	Increased irritability Deficits in anger management Apathy Emotional regression Increased egocentrism Increased agitation Increased anxiety Decreased motivation Depression Posttraumatic stress disorder
Social	Increased social awkwardness Inappropriate comments to others Withdrawal/isolation Over/under-reactivity to the behaviors of others Impairments in recognizing emotions of others Disruptions/difficulties in peer relationships
Behavioral	Increased aggression Inappropriate sexual contact/promiscuity Substance use or abuse Reckless/impulsive behaviors Noncompliance Conflict with authority

References for symptom presentation include: Arroyos-Jurado et al. (2006); Babbage et al. (2011); Bauman et al. (2007); Chesire et al. (2011); Davis and Dean (2010); Dikmen et al. (2010); Douglas (2010); Ewing-Cobbs and Bloom (2004); Farmer and Peterson (1995); Hajek et al. (2010); Hooper (2006); Jantz and Coulter (2007); Jantz et al. (2014); Lane-Brown and Tate (2011); Lezak (1995); Lezak et al. (2012); Max et al. (2012); Savage et al. (2005); Sharp et al. (2006); Shaw and Paez (2002); Yeates and Taylor (2006); Ylvisaker et al. (2007); Ylvisaker and Feeny (1998).

The stress associated with caring for someone with a TBI may be severe. In one study (Calvete and Lopez De Arroyabe 2012), 28.5 % of the caregiver participants ($N=223$) displayed severe depression and elevated levels of grief as measured by the Texas Revised Inventory of Grief (TRIG; Faschingbauer et al. 1981). Findings also suggest that perceived social support and coping, as reported by caregivers, plays an instrumental role in dealing with grief and depression. Caregivers in this study who reported that they experienced increased levels of understanding, sympathy, and help from others had

lower levels of depression. Finally, in this study, specific coping mechanisms that decreased grief and depression symptoms included acceptance, cognitive restructuring, and distraction; whereas coping mechanisms that increased grief and depression symptoms were related to problem-solving, emotional expression, and disengagement (e.g., avoidance and denial). The authors found their results to be consistent with studies that suggested that active efforts to change immutable situations may result in more frustration and distress.

Recent studies specific to siblings of children who have sustained and survived a TBI found that siblings who reside in the home of an injured child experience reduced self-esteem (Sambuco et al. 2012). These children also had high levels of psychological stress (e.g., worry, feelings of increased responsibility, obsessive-compulsive thinking, interpersonal sensitivity), school problems, aggressive personality changes, changes in day-to-day life, and changes in the sibling relationship (Sambuco et al. 2008).

Parents may experience a reduction in the ability to effectively parent both injured and non-injured children in the wake of a TBI as a result of increased financial costs, litigation, guilt, and remorse (Noggle and Pierson 2010). Additionally, Reid et al. (2002) demonstrated that parents who experience higher stress levels are more likely to respond punitively to undesirable behaviors in their child, a response that has been found to maintain and/or escalate a child's challenging behaviors and the parents' subsequent responses (McKinlay and Anderson 2014). Irritability, angry outbursts, and noncompliant behavior are among the common consequences of children who have sustained a TBI (Table 1). These challenging consequences can exacerbate existing parent stress levels, lead to ineffective parenting, and alter the quality of parent-child interaction. For children with TBI, this can lead to further secondary mental health concerns beyond those attributable to the physical damage of the trauma.

Some of these additional mental health concerns can emerge as a function of anosognosia. Anosognosia is a condition wherein individuals who have sustained a TBI appear unaware of some or all of their TBI-related deficits or do not recognize how those deficits affect their daily functioning even though the deficits are apparent to caretakers (Murrey et al. 2005; Prigatano 2005; Richardson et al. 2014). When this occurs, uninjured family members may have difficulty understanding the injured family member's vantage point, which may cause turmoil in relationships or increased emotional distress for family members (Richardson et al. 2014). Conversely, when individuals perceive themselves to have changed significantly following a TBI, there is an increased likelihood of depression, low self-esteem, and grief (Carroll and Coetzer 2011).

Growing research related to the impact of TBI on military families indicates family members "frequently lack important information about the veteran's condition, prognosis,

treatment, and home assistance needs, contributing to misguided expectations, disappointment, frustration, family conflict, and child distress” (Perlick et al. 2011, p. 71). Further complicating the nature of TBI for war veterans is the presence of war-related medical problems that result in three separate outcomes: a TBI with associated posttraumatic stress disorder, a TBI with associated pain, or a TBI with associated posttraumatic stress disorder and pain (known as the polytrauma triad; Cifu et al. 2013).

In a comprehensive review of racial and ethnic differences in postinjury outcomes after TBI, Gary et al. (2009) reviewed data from 39 articles that discussed TBI as it pertains to racial and ethnic disparities. In terms of functional outcomes, the majority of minorities experienced worse disability levels and less functional independence, with these differences persisting up to five years post-TBI. Additionally, most studies reviewed found that African Americans and Hispanics were less likely to receive extensive acute and postdischarge medical and psychological services.

Grief Associated with TBI

The vast range of neurological, cognitive, emotional, social, and behavioral consequences associated with TBI at all severity levels and the extent of time that these outcomes can be observed (short-term to lifetime) speaks to the complexity of recovery following TBI. It also offers insight into how TBI is an event that requires more than physiological healing; rather, the array of possible TBI-related consequences can easily affect interpersonal relationships and alter previously defined family roles and functions. When this occurs, these alterations in roles and functions are grieved by the injured individual as well as family members, friends, and other close individuals.

When parents give birth to a healthy child, they naturally dream of a bright future in which their child excels and enjoys a long and healthy life. TBI has the capability to instantaneously alter a child’s life and subsequently destroy the dreams parents may hold for their child. When this occurs, parents grieve the loss of the *child who was* as they struggle to accept the *child who now is* (Clark et al. 2008; Roscigno and Swanson 2011; Taub 2006). Similarly, the siblings of a child with a TBI may grieve the loss of the *brother or sister who was* and struggle to accept the one who now has a TBI. When a parent sustains a TBI, there may be a grieving response for the *spouse and parent who was*. This grief response primarily occurs when a family member sustains a moderate to severe TBI, but it may also occur when the person sustains an mTBI because in some cases, the neurological, cognitive, behavioral, social, and emotional disturbances can continue for years following the injury (Dean and Sterr 2013; Yang et al. 2014).

It is important for school psychologists to remember that grief counseling is not always perceived to be a need by hospital or rehabilitation personnel and, in some cases, is not available at these facilities (e.g., in rural settings). It is also important to consider that while a treating physician, hospital, or rehabilitation center may provide parents with educational information about TBI that may help them in the grieving process, parents may not think to share this information with their uninjured children. There may also be some instances in which parents deny their uninjured children access to educational information pertaining to TBI in an attempt to protect them from knowing the full extent of the affected individual’s injury or prognosis. When educational information about TBI is not shared with uninjured children, it is likely they may not grieve appropriately, or the grief process may become arrested.

Ambiguous Grief/Loss

Difficulties in the grief process associated with caring for a loved one with TBI are accentuated by the fact that TBI is considered to be an ambiguous loss, in that the family member is alive but different than before the trauma (Landau and Hissett 2008). There are two types of ambiguous loss that can apply to TBI. The first type occurs when the person with a TBI is not physically present (such as in the hospital) but is psychologically present (as a parent figure, child, etc.). The second type occurs when the person with a TBI is present but not available in the same psychological way (i.e., psychologically absent; James and Gilliland 2013), meaning that the individual’s capacity, temperament, function, or personality is different than before the injury. These two types of ambiguous loss are considered to be severe stressors that contribute to grief and depression among family members, even after significant time has elapsed since the TBI (Wade et al. 2001). Those affected by a TBI, including caregivers and family members, may need professional help for more than a decade after the injury (Lefebvre et al. 2008), and the psychological distress may increase as more time elapses (Wade et al. 2002).

Complicated Grief

Although no unified definition of complicated grief exists, it is understood that complicated grief differs from normal grief. Complicated grief includes more intense emotions and intrusive memories related to death and trauma (Health and Cole 2012b), and symptoms persist for 6 months or more. Complicated grief is characterized by symptoms such as increased levels of depression and anxiety, disbelief, longing, anger guilt, withdrawal, and avoidance (Wittouck et al. 2011). Such symptoms may significantly disrupt a child’s academic, social, and behavioral functioning. That is, there is often a

decline in academic performance and an escalation of premorbid behavioral difficulties as teachers and caregivers struggle to meet the needs of the grieving child (Heath and Cole 2012b).

Role of School Psychologists

School psychologists are in a prime position to “identify, advocate for, and serve students with traumatic brain injuries of all severity levels” (Davies 2013, p. 13). Although crisis intervention and grief counseling may be available for the individual and family system during hospitalization (Jacobson and Butler 2013), once a child is discharged, the process may need to continue. Additionally, although hospitals are typically sufficiently staffed by medical and mental health professionals to address the psychological needs of a child and his or her family members, school settings are generally more limited in available resources (e.g., school counselors). Thus, school psychologists may be able to serve as an additional resource to the school.

Although school psychologists may be concerned about the limited amount of time available to meet the needs of grieving children and families affected by TBI, they are perhaps the best situated to work with these children at all levels (individual, group, and systems) using appropriate short-term, school-based, TBI-related grief counseling and services (NASP 2010a, b, c). These services should be designed and implemented to target children’s adaptation to grief and increase school success, both academically and behaviorally. The goals and focus of these services, however, must be related to improving children’s success in schools—a reasonable goal given grief’s impact on student learning. It should be noted that long-term grief counseling is likely best suited beyond the school walls with school mental health services serving a supportive role to long-term therapy.

Given that educational journals have not published many articles related to TBI (Davies 2013), there is little research regarding the efficacy of adapted therapy models to address school-based, TBI-related grief issues for affected children. This is likely the result of two factors: (a) obtaining large populations of children with TBI in the schools is challenging and, (b) school psychologists have received little training or education about TBI (Canto et al. 2014). When the topic of grief in educational journals has been addressed, it has focused on providing classroom supports (e.g., Heath and Cole 2012a). There are fewer articles documenting evidenced-based counseling practices which address grief; much of the literature on grief counseling is discussed more frequently within clinical contexts (e.g., Worden 2009). However, recently, several published chapters have focused on addressing strategies for treating complicated grief. (Heath and Cole 2012b; Mullen and Storie 2012 as cited in Brock and

Jimerson 2012). Such strategies are easily adapted and extended to treating features of ambiguous loss that are associated with TBI.

A review of grief counseling methods relevant to addressing ambiguous loss is discussed below. Additionally, a brief discussion of strategies used to address complicated grief that may be suitable for working with TBI ambiguous loss themes is included. The above methods have not directly been studied in school settings to date; however, the five approaches covered below (school-based complicated grief strategies, family-focused grief therapy, art-based therapy, sandplay, and the double ABC-X model) have been used successfully with other populations coping with ambiguous loss (e.g., parents with autistic children; Ramisch 2012).

Grief Interventions for TBI

Complicated Grief and Ambiguous Loss

A discussion of promising treatment strategies for complicated grief in children (conducting an inventory of feelings, identifying coping strategies) is provided by Mullen and Storie (2012). These strategies can be applied to children or families struggling with TBI grief issues. For example, metaphor techniques can help make abstract feelings about TBI grief become more concrete so that they can be better understood. Mullen and Storie’s description of a life vest metaphor could be adapted to help a child with a TBI explore his or her feelings about the TBI. Using this metaphor technique, a drawing of a life vest representing a child’s struggle to accept his or her TBI would be presented to the child. The child would be given a variety of cutouts of different colored sandbags and asked to label each sandbag with a perceived barrier to recovery. The feelings associated with each of these barriers would then be labeled and validated. This would be followed by a discussion of how each feeling influences the child’s perception of recovery. Another metaphor strategy discussed by Mullen and Storie is the “Memory Rocks” intervention, which allows for the differentiation of positive and negative statements. This could also be adapted to helping a child grieve losses associated with a TBI. The child would be pieces of paper on which he or she is asked to write statements that reflect his or her memories pertaining to when a sibling sustained a TBI. When a statement is identified as negative (e.g., “I thought he was faking his TBI”), it is tied to a rock and discarded into a trash can. Conversely, when a positive statement is identified (e.g., “she amazed everyone with how fast she left the hospital”), it is retained. This would be followed by a discussion of the benefit of letting go of past negative memories.

Mullen and Storie also discuss a strategy to help those affected by TBI to build coping strategies and support systems. In this strategy, individuals create a list of coping

strategies used in similar situations where they have lost something and then rate the effectiveness and applicability of each strategy to the present situation. Individuals may also observe how others have coped in similar situations and evaluate whether the strategies might apply to the present situation. This kind of strategy can be extended to parent groups as well, either within the school environment or in a larger community, to help parents connect and develop stronger resources to deal with stress associated with TBI-related ambiguous loss.

Many of the aforementioned features of complicated grief are similar to issues that arise when children with TBI and/or caregivers deal with ambiguous loss. Therefore, treatment strategies pertaining to complicated grief in school settings may be applicable to treat ambiguous loss as well. For example, Webb (2010) as discussed in Heath and Cole (2012b), suggested using a tripartite assessment that considers individual, death-related factors and family, social, religious, and cultural factors. When applying this model to TBI and ambiguous loss, the death-related factors may be replaced with ambiguous loss-related factors. For example, when a school psychologist works with a child or family to explore death-related factors, the school psychologist may focus on the child's relationship with the deceased, whereas when the school psychologist works with a student dealing with ambiguous loss, he or she may discuss how loss of preinjury abilities might impact subsequent adjustment and coping.

Family-Focused Grief Therapy

One evidenced-based practice that may be modified by school psychologists for school settings is Family-Focused Grief Therapy (FFGT; Kissane and Bloch 2002). FFGT is a time-limited systems approach that helps families maximize individual and family functioning through the sharing of grief-related feelings, the recognition of family strengths, and the identification of ineffective coping skills, irrational beliefs, and communication styles (Jacobson and Butler 2013). Because it provides “a way to address and normalize the emotional process of losing a healthy child (Jacobson and Butler 2013, p. 421), FFGT may be helpful as an intervention for ambiguous loss associated with TBI. FFGT has many unique facets that suggest it could be implemented within school settings. As described by Masterson et al. (2013), such advantages which speak to the feasibility and adaptability of this model include: training which includes a 1-day workshop utilizing role-play exercises, its adaptability to both masters and doctoral level clinicians (specifically relevant as many school psychologists hold a specialist level degree). As summarized by Del Guadio and cited in Masterson et al. (2013) FFGT

has shown promise as an intervention that can be delivered across multiple settings and with a sensitivity to

families' cultural needs. FFGT therapists are able to approach families of different cultures with an air of respect and curiosity. The spirit of this approach promotes appreciation amongst the family and their willingness to share their customs and traditions. (p. 122)

Thus given the increasing diversity of the school-aged population, attention to cultural differences and nuances is necessary in order to implement interventions. Since FFGT seems to address these issues, this further speaks to its promise as a valuable school-based intervention to help families cope with ambiguous loss associated with TBI.

FFGT includes three phases: assessment, intervention, and termination (Kissane et al. 2006). During the assessment stage (one to two sessions), the family counselor (school psychologist) works to determine the family's major concerns, collects family history information, and assesses family dynamics. Encouragement of self-disclosure through open-ended questions is a major part of this initial stage. During the intervention stage (two to four sessions), the school psychologist focuses on building resiliency and continues to address key concerns. Specifically, during this stage, the school psychologist helps the family to identify their own psychological resources (internal and external) and empathizes with the family's distress associated with grief about the TBI. Finally, in the termination stage (one to two sessions) the school psychologist focuses on providing reassurance and terminating therapy. As with any counseling intervention, rapport-building is an important component of FFGT.

Although the suggested duration of FFGT is time-limited, the duration and frequency of counseling will depend on the specific needs of the family and counseling environment (Chan et al. 2004). The following is a brief example of how school psychologists might adapt FFGT: As a result of sustaining a severe TBI, 15-year-old Bob's formerly athletic sister, Mary (17 years), is partially paralyzed. Once rapport has been established, a school psychologist assesses the level of Bob's major concerns (e.g., how concerned he is about having to care for his sister) through the use of open-ended questioning. The school psychologist also interviews caregivers and family members in order to gain additional insight about Bob's concerns. In this scenario, the school psychologist obtains information on how roles within the family system may have changed since Mary sustained her severe TBI. After obtaining relevant information, the school psychologist introduces an 8-week intervention program focusing on building the family members' resiliency. The intervention focuses on the student (Bob), although ideally all family members are involved in some way. To effectively increase resiliency, the school psychologist works to identify the psychological internal resources within Bob as well as the surrounding supports in place (e.g., family, religious groups, other outside supports). The goal is to counteract poor coping skills by replacing them

with more adaptive ones. For example, if Bob is focusing on negative emotions (e.g., anger) and these are manifesting as disruptive and attention seeking classroom behavior, the school psychologists' goal is to replace these with positive mechanisms. That is, the school psychologist helps Bob find meaning in the experience so he can express his anger in a more prosocial manner rather than acting out through disruptive behavior. This could take the form of his helping Bob educate others about TBI or providing him with physical activities to release his emotions. Finally, over the course of the intervention the school psychologist provides reassurances on Bob's progress and ideally by the seventh week has developed a resiliency plan that includes termination and connection to further resources.

Art-Based Therapy

By definition, ambiguous loss is vague and contradictory. Therefore, it may be difficult for those experiencing such loss to define the nature of their loss or understand and validate its gravity (Boss 2010; Betz and Thomgren 2006). Therapies that provide alternative outlets for expression of feelings may help those experiencing ambiguous loss as they struggle to understand and make sense of their loss. Art-based therapy is one means by which grief associated with ambiguous loss may be expressed and defined. Art-based therapy involves making a variety of art materials (e.g., clay, paper, paint) available to an individual who uses the materials to create a piece of artwork (e.g., a drawing, sculpture). With the aid of the therapist, the artwork is used to help the individual become aware of, explore, and reflect on repressed feelings (Freilich and Schectman 2010). Art-based therapy has been shown to be efficacious in "assisting children with the development of increased self-esteem, socialization, and improved psychosocial functioning" (Coholic et al. 2009, p. 66). It has also been found to help children express feelings and personal experiences (Freilich and Schectman 2010). Furthermore, Coholic et al. found arts-based methods helpful when children lack the necessary skills often employed in traditional talk therapy. Even if children are verbally capable, they might feel more comfortable sharing their stories through nonverbal avenues (Stafstrom et al. 2012), especially if the child is younger (Finn 2003). Arts-based therapy has been adapted successfully for group settings. For example, Coholic et al. (2009) developed a group method consisting of 6 to 12 sessions that used facilitated, goal-based activities (e.g., painting, drawing, working with clay) designed to meet the overall goals of the group (e.g., identifying emotions, accepting the limitations of others). The short-term focus of this application makes it feasible for implementation within the time-limited nature of school settings. When applied individually, arts-based therapy could be used to help a child recognize and explore his or her feelings about a parent's severe TBI. That is, the school

psychologist could ask a child to draw pictures of various objects that represent how he or she feels when thinking about the parent's TBI. The child could then be asked to label each feeling associated with an object. After validating the child's feelings, the school psychologist could help the child reflect on how these feelings might represent the child's grief over the loss of the healthy, non-TBI parent. A variation to this approach would be to have the child use modeling clay to construct an object that represents the child's feelings of loss associated with the parent who is now physically impaired and no longer able to interact with the child at preinjury levels. When used in a group setting, this child could be part of a group of peers experiencing similar loss issues related to divorce, military deployment, etc.

Sandplay

Research suggests that nonverbal expression of emotions and actions can have a more immediate effect than the use of words and can be activated through sensory interventions such as sandplay (Lacroix et al. 2007). Sandplay allows children to choose from an array of miniature human characters and objects and create scenes in a sand tray. Lacroix et al. (2007) have found that children may organize their sand trays to represent either their ideals or conflicts. Such sensory techniques have proved effectual specifically in working with young children with limited verbal skills who have been exposed to trauma (Lacroix et al. 2007). Thus, school psychologists may adapt such an intervention to work with TBI students. When children tell their stories using this creative method they may be able to resolve some of the conflicting emotions which accompany their ambiguous loss. Even verbal children may benefit from using creative methods, as the school psychologist may use the child's sand creations to facilitate open dialogue by asking more specific questions and engaging in discussions about unresolved issues.

Adapting a technique used by Freedle (2007), a school psychologist using sandplay would ask a child who had sustained a TBI to create a series of sand tray pictures over the course of a 9-week period. During each session, the school psychologist would take detailed notes pertaining to the child's behavior and conversation during the construction of each scene. At the end of each play session, a photograph of the completed scene would be taken. After 9 weeks, the school psychologist would meet with the child and have the child reflect on the photographs. During each reflection, the school psychologist would note themes (e.g., grief, loss, need for normalcy) and fundamental goals (e.g. wholeness, purpose). Each of these themes and goals would be explored with the child.

Double ABC-X

The Double ABC-X model of family stress is reviewed by Ramisch (2012). The original model (ABC-X), developed by Hill (1949) and later modified by McCubbin and Patterson (1983), was derived to help with family stress within a broader systemic approach in reaction to trauma or crisis. As summarized by Ramisch:

In Hill's original ABC-X model, the different factors of (A) the stressors and strains, (B), the intra-family resources, as well as (C), the family's definition and perceptions in order to make meaning out of the event all interact to result in (X), the crisis. McCubbin and Patterson (1983) modified the model to address precrisis stressors and added four more variables (aA) the pile up of stressors and demands, (bB) the family's ability to acquire and utilize individual and community resources for dealing with the stressors, (cC) the changes that the family makes to its definition of the situation and the coping strategies that the family employs in order to manage and (xX) adaptation, which is the result of all the efforts made by the family. (pp. 306–307)

While this has not been directly applied to children with TBI in resolving ambiguous loss, the techniques have been suggested as potentially helpful in other cases that involve ambiguous loss (e.g., parents with autistic children, caregivers of Alzheimer's patients). People are generally expected to move on with their lives after a loss; however, with ambiguous loss it is more difficult for a family to move on as there is the impossibility of the situation and lack of closure that may leave them feeling powerless (Boss 2010). Therefore, in the case of TBI, school psychologists may work with the steps outlined in the Double ABC-X model (McCubbin and Patterson 1983) to assess the current stressors that are inhibiting school progress as well as assist children and families in building resiliency.

Similar to caregivers of autistic children, those who are enduring ambiguous loss associated with TBI may experience new stressors to the family system and may benefit from an adapted Double ABC-X model. Ramisch (2012) describes a case study in which this model was incorporated into a marital/family therapy outpatient setting in order to help a couple cope with their child's autism diagnosis. Based on the results, Ramisch recommends using this form of counseling in similar situations involving ambiguous loss. He states that there is accurate assessment and intervention for (a) stressors identified (both pre and post crisis), (b) helping the family by collaboratively finding and utilizing helpful resources to cope with the stressors, and (c) assisting the family in learning and using adaptive coping mechanisms. For example, one issue that often presents in ambiguous loss is when a

caregiver loses one's sense of self and becomes overly enmeshed with the child. This is often referred to as boundary ambiguity (Boss 1999).

Tenets of this model can be adapted by school psychologists when helping family members deal with ambiguous loss. While this method does not involve as much interaction with the child, family sessions provide the school psychologist with opportunities to strengthen relationships with parents or caregivers. Such meaningful interactions may result in positive parenting practices that will maximize the psychosocial adjustment of the child with TBI in school, in the home, and in the community.

A key aspect of ambiguous loss is boundary ambiguity, which is commonly described as confusion over who is inside the family and who is not. Boundary ambiguity can also be defined as ambiguity regarding separation between family members' identities. For example, when a child suffers a TBI, the boundaries of the parent and the child can become less clear, which alters the parent-child relationship. This may ultimately result in identity ambiguity which has been linked to negative outcomes such as immobilization, increased overwhelming feelings, and difficulty adapting to change (Boss 1999). Within the adapted Double ABC-X model, the school psychologist may work to help the family member or caregiver reduce boundary ambiguity, which may act as a source of many additional family stressors (Boss 1999). If the school psychologist perceives boundary ambiguity and/or identity ambiguity as ongoing impediments in the healing process, then working collaboratively with the family to help them to identify resources to help reduce associated stress may be beneficial. Targeting and responding to boundary or identity ambiguity in related populations such as in parents with children diagnosed with autism (O'Brien 2007) has shown promise in providing more effective support to families.

Discussion and Implications for School Psychologists

This paper highlights the unique role that grief plays in families who are caring for a child or adult caregiver who has sustained a TBI. It also emphasizes that targeting interventions designed to help family members through the stages of ambiguous loss (e.g., Kubler-Ross 1969) are pivotal to assisting those experiencing grief associated with TBI. Additionally, it suggests ways in which school psychologists may work to adapt evidenced-based strategies from other disciplines to school environments in order to help individuals cope with ambiguous loss and other issues related to TBI. There are, however, potential barriers that limit a school psychologist's ability to provide grief-related counseling or support services to children who have sustained a TBI, their siblings, and their families. For example, adding this role will require an additional expense for ancillary school resources (e.g., appropriate

therapy books, writing materials, art supplies). Ideally, this additional expense will be offset by investments from the larger pupil personnel services department within the school or district, although this may not always be possible. An additional potential barrier is the ability of the family to meet with the school psychologist for short-term family therapy during the school day. For those families and school psychologists unable to coordinate their daily schedules, meetings will need to occur after regular school hours. If the school psychologist is unavailable during or after school, other qualified school personnel (e.g., school counselors) may be able to provide this service to meet the needs of the family. If the school district does not allow sessions after school hours, or the family is unwilling to meet with the school psychologist or other qualified school personnel for services, the family will need to be referred to existing community resources. Some school psychologists may feel uncomfortable with providing grief therapy to children who have sustained a TBI, their siblings, and their families due to a lack of training or experience. For those school psychologists who lack in-depth training in grief therapy or TBI, it is still possible for them to provide supportive counseling services. That is, rather than helping involved individuals process their grief, school psychologists can focus on helping them better understand how their grief is impacting academic functioning. For example, a school psychologist can help the parents of a child who has sustained a TBI understand that their struggle to accept their child's TBI-related changes is resulting in their continuing to hold their child to unrealistic preinjury academic expectation levels. Finally, there are those situations where providing supportive grief counseling services, as described in this article, fall outside a school psychologist's school district-assigned role or central job function. For instance, a school district may limit a school psychologist's role to providing special education eligibility assessment services. In these cases, referral to appropriate community mental health resources is required.

Despite these limitations, the need to provide children who have sustained a TBI, their siblings, and their families with grief-related, school-based counseling and supports remains. As noted above, providing counseling interventions in schools is deemed one of the basic competencies of school psychologists (NASP 2010a, b, c) and qualified school psychologists are well-positioned to provide these services. All states require school psychologists to obtain continuing education in order to retain their credentials to practice school psychology. Those school psychologists who lack sufficient training in grief counseling or TBI can use this continuing education requirement to obtain the necessary training.

School psychologists must be aware that the need for grief-related counseling and support exists. Knowing that a child or parent has sustained a TBI can aid school psychologists as they assess the need to provide school-based grief-related services. It can also help school psychologists support the efforts

of mental health providers outside the school setting who may already be providing these services. By establishing working relationships with TBI medical and rehabilitation facility personnel, school psychologists can become more informed when a child or a parent in their school sustains a TBI. One way to accomplish this is to establish a school-based TBI transition team that includes TBI medical and rehabilitation facility personnel.

Each year, a significant number of children and adults sustain and survive a TBI significant enough to affect interpersonal relationships and alter previously defined family roles and functions. These changes in relationships and altered roles are often grieved by the injured individual as well as family members, friends, and other close individuals. They can also have a significant impact on the academic functioning of affected children. School psychologists are well-positioned and generally well-trained to provide basic school-based psychological grief counseling and supportive services to these children and families. This paper has briefly discussed TBI consequences, reviewed the effects of TBI on families, discussed grief as it applies to TBI, discussed the role of school psychologists in providing grief counseling, provided examples of grief intervention programs that may be adapted for TBI. It has also discussed potential barriers to implementing school-based grief services for TBI.

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