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## Counselling Children after Wildfires: A School-Based Approach Le counseling auprès des enfants après un incendie de forêt : une approche centrée sur l'école

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### ABSTRACT

Population growth into wildland-urban interface areas and wildland fires continue to threaten people and property across Canada. This article focuses on the promotion of healing of children affected by wildfires based on results from our mixed methods study outlined in detail previously (Townshend et al., 2015). A brief review of the literature on children and their responses to natural disasters and to wildfires is followed by key findings from our research. School counselling strategies are outlined that can be implemented school wide (i.e., universal programs, support groups, or in the classroom) or through individual or group counselling.

### RÉSUMÉ

Partout au Canada, les personnes et les propriétés continuent d'être menacées par l'accroissement des populations installées en périphérie des régions sauvages et du nombre d'incendies de forêt. Dans cet article, on explique comment favoriser la guérison chez les enfants qui ont été touchés par des incendies de forêt, en se fondant sur les résultats de notre étude à méthodes mixtes dont nous avons traité en détail précédemment (Townshend et al., 2015). Un bref survol de la littérature sur les enfants et leurs réactions aux catastrophes naturelles, et notamment aux incendies de forêt, est suivi des principaux résultats qui se dégagent de notre recherche. On y souligne des stratégies de counseling scolaire que l'on peut mettre en œuvre à l'échelle de l'école (i.e., des programmes universels, des groupes de soutien, ou des interventions en classe) ou par le biais du counseling individuel ou de groupe.

Canada's forests cover almost half of the country's landmass and make up 10% of the world's forest cover (Raulier, Le Goff, Gauthier, Rapanoela, & Bergeron, 2013). As Canada experiences hotter and drier summers, there is an increased risk in frequency and severity of forest fires across most of the country (Institute for Catastrophic Loss Reduction, 2012). Over the past decade in Canada, about 8,000 forest fires have occurred annually, consuming approximately 2.5 million hectares of forest (Beverly & Bothwell, 2011; Natural Resources Canada, 2014). In

the summer of 2015, 504 new fires burned 1,226,353 hectares of area in Canada in one week, four times more than the national average for that time of year. Seasonal fire occurrence and area burned were both above the 10-year national average (Canadian Wildland Fire Information System, 2015).

Of most concern are wildfires that start in or reach the outskirts of settled areas, referred to as wildland-urban-interface (WUI) fires. These WUI fires often threaten valuable assets and severely disrupt the lives of local residents; their economic and social costs can be substantial (Taylor, Stennes, Wang, & Taudin-Chabot, 2006). There is increasing concern about the number of vulnerable communities at the WUI and the possibility that the area vulnerable to interface with fire may be increasing (Taylor et al., 2006). For example, in May 2016, the costliest disaster in Canadian history (Evans, 2016) took place in Fort McMurray, Alberta, destroying approximately 2,400 homes and buildings and forcing the largest wildfire evacuation in Alberta history (Parsons, 2016) while burning approximately 590,000 hectares ("Fort McMurray wildfire," 2016).

Experiencing wildfires can be alarming for children: the damage to what was familiar, including one's home and community, can threaten a child's sense of safety and normalcy. In the aftermath of wildfires, families can face challenges such as dealing with insurance companies or relocating after their home has been destroyed. A child's psychological recovery in the aftermath of destructive wildfires is typically dependent on the ability of parents and other caregivers (e.g., teachers and school counsellors) to provide the child with emotional support and adaptive coping strategies to help the child return to normal routines (Baggerly & Exum, 2008; Lazarus, Jimerson, & Brock, 2002).

In this article, we build on our work that examined the effects of wildfires on families, children, and the whole community after the May 2011 wildfires in the Slave Lake, Alberta, area (Kulig et al., 2012a, 2012b, 2012c, 2012d; Pujadas Botey & Kulig, 2014; Townshend et al., 2015). The information generated is useful to a variety of professional groups, including teachers and counsellors, who may interact with children that have experienced disasters. Indeed, the latest figures that track disasters show that in 2012, 1.8 million North Americans experienced displacement due to natural disasters (Emergency Events Database, 2013). It would seem likely that, at some stage in their careers, school counsellors will work with students who have themselves experienced a disaster.

The current article focuses on promoting the healing of children affected by wildfires based on results from our mixed methods study outlined in detail elsewhere (Kulig et al., 2012a, 2012b, 2012c, 2012d; Pujadas Botey & Kulig, 2014; Townshend et al., 2015). The present focus is on what school counsellors can do to provide developmentally appropriate interventions to children who have experienced wildfires. We begin with a brief review of the literature on children and their responses to natural disasters, and to wildfires in particular, before briefly outlining the approach to the study. We then offer some of the learning that has emerged from our research, which has implications for school counsellors and personnel in supporting children who have experienced wildfires.

## CHILDREN'S RESPONSES TO DISASTERS

Children are vulnerable in natural disasters because of their susceptibility to injury and their reliance on others for sustenance, decision-making, and emotional support (Peek, 2008). Caring for them during times of disaster involves addressing the psychological and social needs that arise from their level of cognitive ability, emotional vulnerability, and dependence upon the support of family members (Baggerly & Exum, 2008; Jones, Ribbe, Cunningham, Weddle, & Langley, 2002; Miller et al., 2012). According to the National Institute of Mental Health (NIMH, 2013), children aged 6 to 12 years old who have been exposed to natural disasters can display a range of behaviours including emotional reactions (increased physical complaints, separation anxiety, moodiness, depression, expression of irrational fears, irritability, numbing of emotions), behavioural reactions (acting out in school or refusing to attend, restlessness and inattentiveness, playing in violent ways, disrupted sleep), and interpersonal reactions (wanting to be alone).

A minority of children who have directly experienced the wildfires may be at risk for posttraumatic stress disorder (PTSD) if the following symptoms last for more than a month after the wildfires. Referring to the *DSM-IV-TR* (American Psychiatric Association, 2000) for the criteria used in our study, symptoms include: (a) persistent flashbacks of the event and feelings of alarm at the presence of event-related stimuli (e.g., the smell of smoke); (b) blocking the event out by becoming numb to their feelings; (c) experiencing negative cognitions and mood including self-blame, estrangement from others, a decreased interest in activities, and/or to the ability to remember important features of the event; and/or (d) startling easily and experiencing anxiety, irritability, anger, and difficulty sleeping or concentrating.

Meta-analytic reviews of children's reactions to disasters (Norris, Friedman, & Watson, 2002a, 2002b; Trickey, Siddaway, Meiser-Stedman, Serpell, & Field, 2012) indicate that children's reactions are dependent upon a variety of variables, and that children tend to manifest more severe trauma symptoms than adults. Trickey and colleagues (2012) noted in a review of 64 studies of children and youth that medium to large effect sizes were found for factors related to the subjective experience of the event and most importantly to postevent variables such as low social support, perceived life threat, poor family functioning, peritraumatic fear, and comorbid mental health problems.

## CHILDREN'S RESPONSES TO WILDFIRES

Although the information presented in the previous section is also applicable to wildfires, focusing specifically on wildfire research provides additional information about children's responses to this kind of disaster and hence offers insights into potential interventions. A variety of studies exploring the psychological impact of wildfires on children and adolescents have shown that events involving considerable destruction and threats to life or injury to self, family, and friends can give

rise to a wide range of stress and traumatic responses (Jones et al., 2002; McDermott & Palmer, 2002; Miller et al., 2012; Yelland et al., 2010). Developmentally, children vary in their responses to wildfires. Younger children are understandably more dependent upon caregivers to provide support and safety.

When Grade 4 to 12 students' responses to wildfires were examined, McDermott and Palmer (2002) found more evidence of PTSD in students in Grades 4 to 6 as well as a greater incidence of depression in these younger children. Six months after the Canberra, Australia, wildfire in 2003, McDermott, Lee, Judd, and Gibbon (2005) found that 29% of 8-to-18-year-olds exhibited mild, 12% moderate, and 9% severe to very severe posttraumatic stress symptoms.

In a study of children aged 8 to 18, Yelland and colleagues (2010) found that one year after bushfires in Australia, most children fell into the mild range of PTSD symptoms, although a substantial number of youth reported symptoms ranging from moderate to severe. Although formal diagnosis of PTSD was not evaluated in this study, younger children reported greater PTSD symptom severity on self-report rating scales than did older children and were more likely to perceive their lives to be at risk during the wildfires. Even when disaster exposure was controlled, younger children appeared to be more vulnerable to persistent PTSD symptoms.

Studies of gender differences in response to wildfires tend to indicate that girls self-report a higher incidence of symptoms when compared to boys (e.g., Evans & Oehler-Stinnett, 2006; McDermott et al., 2005), but some studies have indicated no gender differences (e.g., McDermott & Palmer, 2002; Yelland et al., 2010). Best practice would suggest that maintaining sensitivity and receptiveness to differences among children's responses and needs is important no matter the gender of the child (Brymer, Reyes, & Steinberg, 2012).

The characteristics of children exposed to disasters and aspects of their environments influence their responses to wildfires. McFarlane (1987), for example, reported that after the bushfires in Australia, the most important determinant of adjustment in children ( $N = 805$ ) and in the family was overall adjustment of parents. Children's ability to be flexible and responsive to the nature of the stress is also effective in regulating their emotions and impulses (Terranova, Boxer, & Morris, 2009). Those children who can access social supports while not becoming overly dependent for emotional support appear to have the best outcomes (Jones et al., 2002; Miller et al., 2012).

Children are particularly vulnerable to secondary trauma following wildfires and other disasters (Caruana, 2010). McFarlane (1987) suggested that poor mental well-being of parents, separation from parents in the aftermath of the disaster, and troubled family functioning may have more impact on children than actual exposure to the wildfires. Interestingly, discrepancies found between parent- and child-reports of symptoms increased with age (Meiser-Stedman, Smith, Glucksman, Yule, & Dalgleish, 2007; Stover, Hahn, Im, & Berkowitz, 2010). Parents reported significantly fewer postdisaster symptoms in their children and tended to identify externalizing symptoms, while child self-reports revealed more symptoms overall and more internalizing symptoms (McDermott et al., 2005; Meiser-Stedman et

al., 2007). In a study conducted by Poulsen, McDermott, Wallis, and Cobham (2015), 22% of children scored within the severe range for PTSD symptoms, but less than 50% of their parents self-reported any concerns about their children and only 29.5% sought mental health assistance for their child.

Parents' lack of understanding of the impact of events on their children suggests the potential for insufficient family, social, and therapeutic support during the acute peritraumatic period. According to Brymer and colleagues (2012):

evaluating and assisting children following a disaster requires attention not only to the means by which the child is coping, what the child is coping with, and what coping support the child is receiving from family and others, but also to any exacerbating factors in the family or community that need to be addressed to improve the conditions toward those of more optimal development and resilience. (p. 146)

School counsellors can play an important role in the healing process by providing a stable, familiar environment. Through the support of school counsellors and other school personnel (e.g., teachers), children can return to normal activities and routines as much as possible, and their frightening experience can turn into a learning experience.

#### RURAL WILDFIRE RESEARCH PROGRAM

The Rural Wildfire Research Team has devoted its projects to the understanding of community resilience within rural community settings that have experienced wildfires (Kulig, Edge, & Joyce, 2008; Kulig et al., 2012a, 2012b, 2012c, 2012d; Pujadas Botey & Kulig, 2014; Townshend et al., 2015). Our research is based on a model of community resilience that includes three components: (a) interactions as a collective unit (i.e., getting along, networks), (b) expression of a sense of community (i.e., sense of belonging), and (c) community action (i.e., community problem-solving; Kulig et al., 2008; Kulig, Edge, Townshend, Lightfoot, & Reimer, 2013). A comprehensive discussion of the model's development—in particular, how it relates to the more recent discussions of resilience—is found elsewhere (Kulig et al., 2013).

A mixed methods study included a variety of data collection methods undertaken by a postdoctoral fellow (third author) who spent considerable time in the community (i.e., 13 trips in one year). Extensive fieldwork and interviews with stakeholders and with 19 families and their children (ages 9 to 12) were conducted 4 to 7 months after the wildfires. A school survey conducted at 6 and 12 months after the wildfires and a household survey conducted 12 months after the wildfires also generated information about the May 2011 Slave Lake wildfires.

These wildfires affected the Town of Slave Lake, the Municipal District of Lesser Slave River #124, and the Sawridge First Nations community. This geographic area 250 km northwest of Edmonton had previously experienced wildfires, but the devastation they experienced when the fire entered the town during the 2011

wildfires was unprecedented. It resulted in the evacuation of just over 7,000 residents of the affected communities and the loss of 14 businesses, more than 500 homes, and the partial destruction of the newly opened Government Centre. During the fire, local firefighters had to make crucial and time-sensitive decisions about which buildings to save (i.e., the hospital) and which could be more easily replaced (i.e., individual homes). A governmental intersectoral committee formed to address issues such as temporary housing and the kind of infrastructure needed to ensure school support was available to deal with the physical, mental, and social devastation.

## METHOD

### *Participants*

Data were collected from three different sources: a school survey, a household survey, and family interviews. Participants who completed the school survey were students from Grades 3 to 12 (typically 8 to 18 years old) who attended one of the five public and private schools in Slave Lake. Out of an estimated student population of 1,184 for 2011 (Alberta Education, 2012), 160 students completed the surveys at T1 and 164 students at T2.

A sample of 550 respondents out of 7,427 potential residents took part in the household survey from May to June 2012. Only 16% reported having a child who was between ages 7 and 12 years of age ( $n = 87$ ), and these respondents completed an additional section of the survey pertaining to the impact of the fire on families and children. This section included the PTSD Index for DSM-IV Parent Version (Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998).

Twenty-seven parents (18 mothers and 9 fathers) and 26 children (16 daughters and 10 sons) representing 19 families participated in interviews. Families who had a child between the ages of 9 and 12 were required to have been residents in the area before and after the wildfires.

Children in this age group were chosen because of their ability to articulate their experiences and to share their insights (Whiting & Lee, 2003).

### *Procedure*

Self-reported measures of posttraumatic stress and coping and behavioural difficulties were obtained from the school survey (Grades 3 to 12) carried out at 6 months ( $n = 160$ ) and 12 months ( $n = 164$ ) after the wildfires. As part of the survey, students provided demographic and loss of home information and completed the UCLA PTSD Reaction Index for Children and Adolescents—DSM IV (Revision 1; Pynoos et al., 1998) and Youth Self-Reported Strengths and Difficulties Questionnaire (SDQ; Goodman, 2001).

The items in the UCLA PTSD Reaction Index (Steinberg et al., 2013) map directly onto the DSM-IV-PTSD criteria B (Re-Experiencing), C (Avoidance), and D (Arousal) and can be used to produce three subscale measures for the severity of these criteria. The severity scores can also be combined to produce an overall

PTSD severity score. In an analysis of the psychometric properties of the UCLA PTSD Reaction Index (Steinberg et al., 2013), the total scale displayed good to excellent internal consistency reliability across age ranges, sex, and racial/ethnic groups ( $\alpha = .88-.91$ ). Correlations of PTSD-RI scores with PTSD subscale scores within sex, age, and ethnic/racial groups provided evidence of convergent validity.

The SDQ (Goodman, 2001) consists of five subscales addressing emotional symptoms, conduct problems, hyperactivity, peer problems, and prosocial behaviours. Muris, Meesters, Eijkelenboom, and Vincken (2004) found that the self-report version of the scale discriminated well between children with and without behaviour problems. Internal consistency reliability was acceptable with a Cronbach  $\alpha$  above 0.70 for all SDQ scales except for conduct and peer problems. Interrater correlations ranged from 0.33 to 0.45.

The household survey included a variety of established scales to address topics such as evacuation experiences and social relations in the community postdisaster. Parents also assessed their identified referent child's level of PTSD through the PTSD Index for DSM-IV Parent Version (Pynoos et al., 1998), which was developed to complement the child's report of PTSD symptoms. Of the 550 respondents, 18% (93 respondents) had a child that met our criteria of being between the ages of 7 and 12 years. Fifty-one percent of these children were female ( $n = 44$ ).

About four to seven months after the fires, families were interviewed using a semistructured format; children were interviewed separately from their parents. Interviews included questions about (a) the family's perspectives of Slave Lake as a community, (b) their family experience of the wildfires, (c) changes that individuals in the family unit were experiencing, and (d) any perceived changes in individual and family interactions with the broader community. A full discussion of the family interviews, school surveys, and household surveys are available elsewhere (Kulig et al., 2012b, 2012c; Pujadas Botey & Kulig, 2014; Townshend et al., 2015).

#### KEY FINDINGS

In this section, we highlight key findings from interviews with families and the school and household surveys. These findings provide a context for the implications for school counsellors and school personnel.

##### *Interviews with Families*

In the aftermath of the wildfires, families in Slave Lake underwent multiple adjustments mostly related to social disruption including:

1. *A return to normal life.* In the initial few months after the wildfires, parents identified that the main goal for their families was to return to normal life. This goal of normality represented a constant worry and was slowly achieved by going through some practical stages such as obtaining temporary housing, dealing with insurance companies, and rebuilding their houses. There was a lack of a more holistic view of recovery; that is, parents took a step-by-step process, one day at a time.

We are stuck dealing with insurance people and we spend our days doing contents lists. And, you know, on weekends you have to make a trip to the city because you have to deal with this, until it is done. And life goes on, it just goes on and on, on top of stresses, and your work and your everyday life; your life, you have a whole other thing. (Mother Family #6)

Some respondents commented that although it is important to deal with the practical matters in order to function, these actions do not signify an overall recovery. With time, residents will have to think about what life will be like once the different steps are accomplished.

2. *Changes in family routines.* The state of the community after the wildfires affected family routines, and in particular upset the everyday lives of children. The schools closed for the remainder of the school year as both children and a number of teachers lost their homes, and while parents prioritized activities focused on the reestablishment of normality (i.e., routines, activities), children no longer had school to attend. They also had no opportunity to engage in leisure programs, as community leisure activities were no longer running due to the lack of volunteers. “We were stuck in our house, no school! As soon as the school year started, we are always with our friends; it’s much better” (Daughter Family #12). Even if there were volunteers, they lacked time and the physical energy or resources to offer such programs. Children had few opportunities to get together with friends, as parents were too caught up in recovery from the wildfires to have the time and energy to make this a priority. “I think kids in some ways were a little neglected over the summertime, because we were just busy” (Father Family #16).
3. *Unaffected yet scared.* Within the first six months after the fires, parents showed high levels of stress while their children displayed few observable responses to their circumstances. Children exhibited initial reactions to the evacuation experience, but parents reported that their children were unaffected by the wildfires. However, results from the UCLA PTSD Index showed a likelihood of either partial or full PTSD diagnoses for approximately one third of students 6 months after the wildfires and for about one fifth of students at the 1-year mark (Townshend et al., 2015).
4. *Stronger families but community concerns.* Many parents and children in the community felt that having experienced the wildfires together brought an overall sense of internal family strength. “All this definitively made us stronger as a family” (Mother Family #18). However, fieldwork data supported the idea that some families were in the opposite situation: local police data showed increased rates of vandalism, disturbing the peace, and on occasion enactment of the Mental Health Act to involuntarily hospitalize patients. “I can see why they say marriages go down the tube and people jump off the deep end and stuff, ’cause it does, that puts so much pressure on a person that you can go boom” (Mother Family #6).



5. *Closer yet further apart.* Interactions between families and their closer community relationships (e.g., friends, neighbours) in general became stronger as new acquaintances were made and people helped one another out. “I think that everybody’s relationship with everybody is tighter and stronger. Because you just have a higher appreciation for it [the relationship]” (Mother Family #19). However, interactions with other people in the community sometimes became more challenging, in part because some had the experiences of having lost homes and possessions while others had not. “So, everything changed. Everybody is so guarded ... I think for me the big thing is you just never know how people are going to react” (Father Family #12).
6. *Change in values.* For many parents and children, the wildfires meant a change of perspective on what are important things in life. There was reduced appreciation for material possessions and increased emphasis on their families, human relationships, and caring about others. “You appreciate what you have, or like what you have right now, like, living at this right moment, I guess” (Daughter Family #19).

Overall, results highlighted the important role of parents in the recovery of children and families, and the necessity of examining the family unit and the changes it undergoes in re-establishing family routines. Results also cautioned about the possibility that children may be protecting their parents by not disclosing their fears and concerns as they saw their parents overwhelmed and worried about rebuilding and finances. Parent assessment scores of their children on the PTSD Index for DSM-IV Parent Version (Pynoos et al., 1998) were lower than self-reported by those children who took part in the school surveys. Parents indicated in the household survey and in the interviews that they were experiencing few difficulties with their children (Kulig et al., 2012b). Yet there were indications in the family interviews that families felt overwhelmed by the number of life decisions that needed to be made in short order.

### *School Survey*

Most of the participating children did not present symptoms that would indicate a diagnosis of PTSD at 6 months and at 12 months after the wildfires. In fact, by 12 months, a full PTSD diagnosis was likely for only 7.9% of the children. The only score on the UCLS PTSD Reaction Index (Steinberg et al., 2013) that did not change significantly was the score for the Arousal criterion. Female students’ self-reports led to higher ratings than males on the subscales of Re-experiencing, Arousal, and overall PTSD Severity. Younger children’s self-reports contributed to higher scores than the older children when examining their overall PTSD Severity, Re-experiencing, and Avoidance.

Approximately one in five of the children surveyed had lost their home because of the wildfires, and all of the children were evacuated. At 6 months, the children who had lost their home had higher scores on the Re-experiencing,

Avoidance, and Arousal Scales for PTSD in comparison to students whose homes did not burn down. Additionally, their PTSD severity scores were significantly higher than those who did not lose their homes. At 12 months, there was a significant association between house loss and meeting or exceeding the Arousal threshold only of PTSD. At 6 months, those students who had experienced house loss scored significantly higher on the Strengths and Difficulties Questionnaire [SDQ] subscales of Conduct Problems, Peer Problems, Hyperactivity, and Total Difficulties (Goodman, 2001); however, six months later, these associations were no longer evident, with the exception of the Peer Problem Scale.

Similar to the PTSD scale, children in younger age groups (11 to 12 years) had scores that reflected behavioural issues on the Total Difficulties Score of the SDQ. Interestingly, most of the children in this group did not lose their home. Overall, those most at risk as shown by the SDQ remained consistent at both times of the survey.

### *Household Survey*

Not uncommon with our surveys, our sample for the household survey represented mostly females (69%); 31% had lost their homes and 12% had lost their businesses. Of the group that identified having a child between the age of 7 and 12 years, 54% noted their child had difficulties with behaviour, getting along with others, concentration, and regulating emotions in the year since the fire had occurred. Findings revealed that based on parental assessment of their child, the majority of children feared injury (58%), feared someone would die (73%), and personally felt afraid (54%). In addition, parents assessed their children as being confused (69%), feeling helpless (51%), and feeling terrified (75%). Furthermore, according to parental ratings, 8 of the 68 children exhibited symptoms indicating a “Partial PTSD Likely” range according to the UCLA PTSD Reaction Index (Pynoos et al., 1998).

In summary, recommendations based on the results from the school and household surveys and interviews with families were to

- provide mental health services and psychological support to children and families for two years after the disaster;
- assess family functioning and general coping processes for at least six years post-wildfires;
- provide additional services and resources for designated professionals (i.e., teachers, counsellors);
- offer free sessions addressing family decision making, financial planning, and general recovery processes;
- encourage parents to provide factual information to their children, to spend time with them, and to promote conversations about their feelings; and
- provide opportunities for children and families to enjoy themselves and support one another. (Rural Wildfire Study Group, 2013, pp. 25–26)

## IMPLICATIONS FOR SCHOOL COUNSELLORS AND TEACHERS

Experiencing a natural disaster such as a wildfire can take its toll on the coping resources of children. When schools remain closed after a wildfire, children lose a very important source of support. The return to school can provide a child with the healing environment of routine and structure, concrete expectations and predictability, and peer camaraderie and support. All of these are essential elements for re-establishing a sense of safety and security, and set the foundation for recovery from fire-related distress. School counsellors and teachers are in a position to provide emotional support to students and to foster their adaptive coping strategies. Additionally, school-based screening can catch those children most at risk, whose parents are not aware of their child's emotional well-being (Poulsen et al., 2015). Because teachers observe students each day, they are able to assess subtle changes in student behaviour following a trauma experience.

*The Role of School Personnel and Counsellors in Helping Children Recover*

In rural disasters, school personnel and counsellors may find themselves in the dual role of being both a support to children *and* a survivor who has been touched personally by the event. As community members, they may also be coping with many of the issues faced by the community as a whole—economic loss, relocation, and their own emotional responses to the wildfires. While being aware of their own competencies and limitations, school counsellors can work with school personnel to re-establish a sense of safety and normalcy in the school environment, focusing on social connectedness among staff and students, and encouraging the development of effective coping mechanisms. Judith Herman's (2001) triphasic model of trauma recovery offers guidance: “[The elements] are safety and stabilization, remembering and mourning, and reconnecting and healing. In the immediate aftermath of a disaster, providing a safe and secure place, physically and emotionally, is paramount” (p. 159).

School settings are ideal places to work with children who are recovering from the effects of wildfires for several reasons. Children attend daily, increasing compliance rates to accessing help; teachers notice students who are having difficulty concentrating or who are engaging in acting-out behaviours in the classroom; and children are among their peers who share the same experiences (Evans & Oehler-Stinnett, 2006). Being able to access peer support while exchanging stories of the event can assure children that their reactions are appropriate and typical (Baggerly & Exum, 2008).

In the aftermath of wildfires, school counsellors face challenges in providing mental health interventions to children because of the difficulty in communicating with parents, both to gain consent for counselling and to include them in psychoeducational programs. Displaced residents who find themselves living in temporary housing may also have changed phone numbers and may not have access to transportation. The increased stress of living in temporary shelters can leave families with reduced energy and motivation to participate in school-based

interventions (Jaycox et al., 2007). Fortunately, psychoeducational and whole-class interventions do not require parental consent. For those children who experience persistent symptoms that disrupt their functioning, one-on-one counselling, group counselling, or support groups can be offered after obtaining parental consent. When parental consent is difficult to obtain, social workers or other community workers can check in with the parents to see if they received the form and whether they are interested in their children receiving services through the school. Classroom interventions have the benefit of reaching large numbers of children and often can be integrated into the curriculum. Since teachers already have a relationship with the children, the familiar routine can reinforce the expectation that life will return to normal. After the Slave Lake wildfires, the schools closed out of necessity, and the children were not able to return to school until schools reopened in the fall. In circumstances such as this, alternatives to ensure social interaction with other children may have been beneficial in reducing the behavioural difficulties self-reported by some of the children.

### *Whole School Activities*

At the school level, increased efforts to re-establish school routines can help return normalcy to each child's life, which in turn can provide reassurance and a sense of safety and agency. Children need to be assured that they are physically safe, and finding ways to participate in the rebuilding of the community can send this strong message. Fixing up the schoolyard by planting flowers and trees is just one way in which children can feel that life is moving on. Providing a safe place to talk about what they went through, to express their fears, and to be reassured directly through supportive responses by adults can provide children with emotional safety. Children need to feel effective and see that their efforts are making a difference. For example, older students can take on leadership roles by mentoring younger students who need extra support and friendship. In our study, results from the school and household survey indicated that younger children were more likely to experience behavioural difficulties and fears associated with the wildfires. In the household survey, parents assessed their children as being confused, helpless, and terrified. Teachers can also increase opportunities for children to make decisions and choices in their classroom to expand their sense of control over their lives.

Teachers should be considered part of the intervention team and need to be able to identify the warning signs of grief, depression, and stress to help prevent PTSD in children who have been traumatized (Balk, Zaengle, & Corr, 2011). Therefore, school counsellors can provide information to teachers about the grief process, depression, and PTSD.

### *Psychoeducational Activities*

Psychoeducation is a professionally delivered treatment modality that integrates and synergizes psychotherapeutic and educational interventions. When delivering psychoeducational programs, it is important not to have children construct a detailed trauma narrative, engage in significant cognitive processing of the event, or

address behavioural manifestations of PTSD (Cohen, 2003). Bisson, McFarlane, and Rose (2000) caution that psychoeducation may sensitize the child to trauma reminders without providing an adequate opportunity to process or resolve the trauma experience. School counsellors need to monitor these discussions carefully and identify those children who exhibit PTSD symptoms and who need more focused attention through one-on-one counselling.

Having a “sense of connectedness,” or belonging, to a school is a recognized protective factor for mental health (Catalano et al., 2003). Discussions co-led by teachers and counsellors about the disaster-related events provide a forum for children to share their experiences with their peers in a safe and caring environment, if children are screened carefully (e.g., paying particular attention to those children who have lost their house to the wildfires). Through verbal and nonverbal methods and across modalities (e.g., drawing, stories, and audio and video recordings), children can process their experiences and develop supportive relationships with their teachers, peers, and counsellors. Given the increase in conduct and peer problems seen in the current study, providing activities that require children to work cooperatively in carefully selected small groups under the guidance of teachers and counsellors can enhance peer relations and provide the emotional support that children need to enable them to cope with adversity (Lazarus et al., 2002; State of Queensland, 2007). Coupled with positive classroom management techniques, one-to-one and small group sessions can help students identify coping strategies (State of Queensland, 2007).

Developing supportive networks is essential in coping with disaster-related stressors, as children may have their friendships disrupted when families relocate. Additionally, parents may be less available as they cope with their own distress and the busyness of life as they try to rebuild their lives.

### *Classroom Activities*

Teachers can integrate information about wildfires into core social and science curriculum as a powerful way to provide *wildfire* education, explore the impact of wildfires on the social structure of communities, and present historical perspectives on how communities recovered (Evans & Oehler-Stinnett, 2006). With coaching by the school counsellor, teachers can facilitate disaster-related emotional coping by encouraging activities such as drawing, puppet shows and plays for younger children, art projects, oral and written story-telling, skits, journal writing, and poetry for older children and adolescents. Other suggestions include portraying their experiences of the fires in various multimedia, either individually or in small groups (e.g., a mural).

When children listen to age-appropriate literature about catastrophic events, opportunities for discussion arise. This is a key strategy in helping children deal with the effects of a disaster. Through children’s literature, students generate alternative responses to the stress they might be feeling (Iaquinta & Hipskyl, 2006). Bibliotherapy can help children face personal issues, relieve emotional pressures, address their fears, and build their coping abilities

(Stamps, 2003). It can be used with a single child, with a small group of children, or with an entire class. During guided reading led by the teacher, students learn that others have faced similar problems and found a way to heal. During the discussion of the character's difficulty and the manner in which the character coped, students may develop personal strategies to solve similar problems (Iaquintal & Hipskyl, 2006). As children identify with the character or situation in the story, they may experience catharsis and gain insight that motivates them to make positive changes. A list of children's books is available at the end of this article.

Creative literature activities are ways to further support children in coping with their concerns. Students can list all the solutions the character came up with to solve the problem while suggesting their own solutions, make three wishes, make a collage, or create a worry box in which they write their worries on slips of paper and put them in the box. In Slave Lake, the firefighters' society wrote the book *Hope Is in Our Hands* (Bickell, 2012) to help children in the community cope with the wildfires. It includes pictures of the fire and evacuation but also examples of help and caring extended to the community. One of the elementary schools developed a wall mural of the children's painted hands in a rainbow with the words "Hope Is in Our Hands." This mural, featured in the book, also illustrates the importance and significance of creative activities to assist students in coping with tragedies affiliated with wildfires. The book was sold throughout the community and was given as gifts to communities that have since experienced such devastation, including the 2012 Colorado wildfires.

### *Individual Counselling*

Trauma-focused cognitive-behavioural therapy (TF-CBT), a 12- to 16-session intervention, can reduce behavioural and emotional problems associated with child trauma exposure (Child Welfare Information Gateway, 2012; Cohen, Mannarino, & Deblinger, 2006; Deblinger, Mannarino, Cohen, Runyon, & Steer, 2011). The efficacy of TF-CBT tested in a number of randomized controlled trials indicates that TF-CBT achieves and maintains greater symptom reduction compared with other treatment alternatives (Cohen & Mannarino, 2008). Because family relationships are closely linked to the development, maintenance, and improvement of children with PTSD (Monson, Rodriguez, & Warner, 2005), TF-CBT involves the parent(s) in the treatment plan. According to Cohen et al. (2006), TF-CBT is appropriate for use with children aged 3 to 18 years with a counsellor trained in the use of this approach.

In the initial phase of treatment, both the child and parent(s) are exposed to the trauma content, such as the loss of the family home and possessions. Over the next several sessions, the focus is on the child's personal experience while the parent(s) meets with the therapist separately. The child is encouraged to develop a trauma narrative or a detailed description of the actual traumatic event. That description is used as the therapeutic exposure to facilitate emotional and cognitive processing. When ready, the child is encouraged to share the narrative with the parent(s) in a

conjoint session. In the final phase of therapy, the focus shifts to personal safety skills, with respect to setting healthy boundaries and being cognizant of dangerous situations. Children are encouraged to utilize the skills learned in managing future stressors and/or trauma reminders. Parents also have an important role in reinforcing the adoption of coping skills by the child (Cohen et al., 2006).

### *Group Counselling*

Cognitive Behavioural Intervention for Trauma in Schools (CBITS; Stein et al., 2003), an empirically supported trauma-based intervention, is aimed at students who report high levels of traumatic stress symptoms. For example, this would include children in our study at T1 who were younger, whose home had burned, or who were female. A combination of 10 group meetings and 1 to 3 individual sessions are involved and include modules on psychoeducation, relaxation, development of trauma narratives, and social problem solving.

### *Support Groups*

Counsellor-facilitated, age-appropriate peer support groups provide another approach to offsetting the effects of grief and trauma (Worden, 2009). In order to have a successful group experience, counsellors must create a safe environment by establishing rules and consistently enforcing them. Although often difficult to implement because of scheduling conflicts and the lack of time to provide adequate closure to the session, support groups provide a place for children to speak freely about their feelings and gain comfort from helping others who are grieving or experiencing other strong emotions due to the wildfire event. If held after school, alternative transportation needs to be arranged, particularly in rural communities. The facilitator's role is to establish that the group is a safe place to explore emotions and to learn skills to cope with their loss. A caring, respectful presence is established through empathic and active listening. The facilitator must be aware of what is developmentally appropriate information to share with each age group.

### *Care for the Counsellor*

Self-care becomes even more important when counsellors find themselves in the dual role of being both a caregiver *and* a survivor who has been touched personally by the wildfires in the community. Lambert and Lawson (2013) caution that mental health workers who are residents of the affected area are likely to experience personal trauma in addition to vicarious trauma from hearing the stories of others. At this time, self-care for counsellors is essential, including the need to watch for signs of exhaustion, numbing, or distancing from others, and over-involvement with clients. Trauma work "requires counselor self-care and self-regulation because of the impact of vicarious traumatization and compassion fatigue. Working in disaster response requires balancing self-care and other care in field situations where practicing self-care techniques may be very difficult" (Webber & Mascari, 2010, as cited in Shallcross, 2012, p. 38).

## CONCLUSION

With the increase in the number of wildfires occurring in the wildland-urban interface, communities will continue to be profoundly affected by the damage to infrastructure and the resulting chaos. In this article, we summarized the main outcomes of our mixed methods study undertaken after wildfires in the Slave Lake region in 2011 with a focus on the children living in the community. In an earlier article (Pujadas Botey & Kulig, 2014), it was noted that families find support in each other and that children were most affected by having to adapt to change—change in the community, change in routines, changes in friendships, and changes in the amount of time parents had to spend with them. The challenge will continue to be how to meet the needs of children who face such changes and to provide appropriate mental health services.

If not affected structurally by wildfires, the school can become a community hub, providing a sanctuary for children and their families postdisaster. Since schools have always been a focal point of community activity in rural communities, they can provide a safe haven and a familiar routine. Children can access professional support from their teachers and school counsellors as well as peer support. School counsellors can work with school personnel to implement strategies at the school level and in the classroom; for those children who need more support due to symptoms of PTSD, individual counselling and group counselling can be provided.

*Resources for School Counsellors*

Cognitive Behavioral Intervention for Trauma in Schools (<https://cbitsprogram.org/>)

*Books for Children*

- Arbruster, A. (1996). *Wildfires* (First Book). London: Franklin Watts. (Ages 9 to 12)
- Bickell, K. (2012). *Hope is in our hands*. Slave Lake, AB: Slave Lake Firefighter's Society. (Elementary grades and beyond)
- Fredericks, A. D. (2001). *Investigating natural disasters through children's literature: An integrated approach*. Englewood, CO: Teacher Ideas Press. (Grades 3 to 6)
- Holmes, M.M. (2000). *A terrible thing happened*. Washington, DC: Magination Press. (Ages 4 to 8)
- Simon, S. (2000). *Wildfires*. New York: HarperTrophy. (Juvenile nonfiction)
- Watts, C., & Day, T. (2006). *Natural disasters* (DK Eyewitness Books). New York: DK Publishing. (Ages 8 to 12)

*References*

- Alberta Education. (2012). *Student population by grade, school, and authority, Alberta 2010/2011 school year*. Edmonton, AB: Information Service Branch.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- Baggerly, J., & Exum, H. A. (2008). Counseling children after natural disasters: Guidance for family therapists. *American Journal of Family Therapy*, 36, 79–93. <http://dx.doi.org/10.1080/01926180601057598>



- Balk, D. E., Zaengle, D., & Corr, C. A. (2011). Strengthening grief support for adolescents coping with a peer's death. *School Psychology International, 32*(2), 144–162. <http://dx.doi.org/10.1177/0143034311400827>
- Beverly, J. L., & Bothwell, P. (2011). Wildfire evacuations in Canada 1980–2007. *Natural Hazards, 59*, 571–596. <http://dx.doi.org/10.1007/s11069-011-9777-9>
- Bickell, K. (2012). *Hope is in our hands*. Slave Lake, AB: Slave Lake Firefighter's Society.
- Bisson, J. I., McFarlane, A. C., & Rose, S. (2000). Psychological debriefing. In E. B. Foa & T. M. Keane (Eds.), *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies* (pp. 39–59). New York, NY: Guilford Press.
- Brymer, M. J., Reyes, G., & Steinberg, A. M. (2012). Disaster behavioral health for children and adolescents: Best practices for preparedness, response, and recovery. In J. L. Framingham & M. L. Teasley (Eds.), *Behavioral health response to disasters* (pp. 143–158). Boca Raton, FL: Taylor & Francis.
- Canadian Wildland Fire Information System. (2015, July). *National Wildland Fire Situation Report*. Retrieved from <http://cwfis.cfs.nrcan.gc.ca/report>
- Caruana, C. (2010). Picking up the pieces. Family functioning in the aftermath of natural disaster. *Family Matters, 84*, 79–88. Retrieved from <http://www.aifs.gov.au/institute/pubs/fm2010/fm84/fm84j.pdf>
- Catalano, R. F., Mazza, J. J., Harachi, T. W., Abbott, R. D., Haggerty, K. P., & Fleming, C. B. (2003). Raising healthy children through enhancing social development in elementary school: Results after 1.5 years. *Journal of School Psychology, 41*(2), 143–164. [http://dx.doi.org/10.1016/S0022-4405\(03\)00031-1](http://dx.doi.org/10.1016/S0022-4405(03)00031-1)
- Child Welfare Information Gateway. (2012). *Trauma-focused cognitive behavioral therapy for children affected by sexual abuse or trauma*. Retrieved from <https://www.childwelfare.gov/pubPDFs/trauma.pdf>
- Cohen, J. A. (2003). Treating acute posttraumatic reactions in children and adolescents. *Biological Psychiatry, 53*(9), 827–833. [http://dx.doi.org/10.1016/S0006-3223\(02\)01868-1](http://dx.doi.org/10.1016/S0006-3223(02)01868-1)
- Cohen, J. A., & Mannarino, A. P. (2008). Trauma-focused cognitive behavioural therapy for children and parents. *Child and Adolescent Mental Health, 13*(4), 158–162. <http://dx.doi.org/10.1111/j.1475-3588.2008.00502.x>
- Cohen, J. A., Mannarino, A. P., & Deblinger, E. (2006). *Treating trauma and traumatic grief in children and adolescents*. New York, NY: Guilford Press.
- Deblinger, E., Mannarino, A. P., Cohen, J. A., Runyon, M. K., & Steer, R. A. (2011). Trauma-focused cognitive behavioral therapy for children: Impact of the trauma narrative and treatment length. *Depression and Anxiety, 28*(1), 67–75. <http://dx.doi.org/10.1002/da.20744>
- Emergency Events Database (EM-Dat). (2013). *Natural disasters trends: World 1900–2011*. Brussels, Belgium: Universite catholique de Louvai. Retrieved from <http://www.emdat.be/natural-disasters-trends>
- Evans, L., & Oehler-Stinnett, J. (2006). Children and natural disasters: A primer for school psychologists. *School Psychology International, 27*(1), 33–55. <http://dx.doi.org/10.1177/0143034306062814>
- Evans, P. (2016, May 5). Fort McMurray fire could cost insurers \$9B, BMO predicts. *CBC News*. Retrieved from <http://www.cbc.ca/news/business/fort-mcmurray-insurance-cost-1.3568113>
- Fort McMurray wildfire now considered under control. (2016, July 5). *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/edmonton/fort-mcmurray-wildfire-now-considered-under-control-1.3664947>
- Goodman, R. (2001). Psychometric properties of the Strengths and Difficulties Questionnaire (SDQ). *Journal of the American Academy of Child & Adolescent Psychiatry, 40*(11), 1337–1345. <http://dx.doi.org/10.1097/00004583-200111000-00015>
- Herman, J. L. (2001). *Trauma and recovery*. New York, NY: Pandora: Basic Books.
- Iaquintal, A., & Hipskyl, S. (2006). Practical bibliotherapy strategies for the inclusive elementary classroom. *Early Childhood Education Journal, 34*(3), 209–213. <http://dx.doi.org/10.1007/s10643-006-0128-5>

- Institute for Catastrophic Loss Reduction. (2012). *Telling the weather story*. Ottawa, ON: Insurance Bureau of Canada. Retrieved from <http://assets.ibc.ca/Documents/Studies/Climate-Story-ICLR-IBC-ENG-ExecSummary.pdf>
- Jaycox, L. H., Tanielian, T., Sharma, P., Morse, L., Clum, G., & Stein, B. D. (2007). Schools' mental health responses following Hurricanes Katrina and Rita. *Psychiatric Services*, *58*(10), 1339–1343. <http://dx.doi.org/10.1176/ps.2007.58.10.1339>
- Jones, R. T., Ribbe, D. P., Cunningham, P. B., Weddle, J. D., & Langley, A. K. (2002). Psychological impact of fire disaster on children and their parents. *Behavior Modification*, *26*(2), 163–186. <http://dx.doi.org/10.1177/0145445502026002003>
- Kulig, J., Edge, D., & Joyce, B. (2008). Understanding community resiliency in rural communities through multimethod research. *Journal of Rural and Community Development*, *3*(3), 76–94.
- Kulig, J., Edge, D., Townshend, I., Lightfoot, N., & Reimer, W. (2013). Community resiliency: Emerging theoretical insights. *Journal of Community Psychology*, *41*(6), 758–775. <http://dx.doi.org/10.1002/jcop.21569>
- Kulig, J., Pujadas Botey, A., Townshend, I., Awosoga, O., Shepard, B., Reimer, W., ... Lightfoot, N. (2012a). *Families and children: Responses to wildfires—links to community resiliency*. Lethbridge, AB: University of Lethbridge, Faculty of Health Sciences. Retrieved from <http://www.ruralwildfire.ca/related-research/slave-lake>
- Kulig, J., Pujadas Botey, A., Townshend, I., Awosoga, O., Shepard, B., Reimer, W., ... Smolenski, S. (2012b). *Report of the Household Survey: Slave Lake, AB*. Lethbridge, AB: University of Lethbridge.
- Kulig, J., Pujadas Botey, A., Townshend, I., Awosoga, O., Shepard, B., Reimer, W., ... Smolenski, S. (2012c). *Report of the School Survey: Slave Lake, AB*. Lethbridge, AB: University of Lethbridge.
- Kulig, J. C., Pujadas Botey, A., Townshend, I., Awosoga, O., Shepard, B., Edge, D., ... McFarlane, B. (2012d). *The 2011 Slave Lake fires: Lessons learned*. Lethbridge, AB: University of Lethbridge.
- Lambert, S. F., & Lawson, G. (2013). Resilience of professional counselors following Hurricanes Katrina and Rita. *Journal of Counseling and Development*, *91*(3), 261–268. <http://dx.doi.org/10.1002/j.1556-6676.2013.00094.x>
- Lazarus, P. J., Jimerson, S. R., & Brock, S. E. (2002). Natural disasters. In S. E. Brock, P. J. Lazarus, & S. R. Jimerson (Eds.), *Best practices in school crisis prevention and intervention* (pp. 435–450). Bethesda, MD: National Association of School Psychologists.
- McDermott, B. M., Lee, E. M., Judd, M., & Gibbon, P. (2005). Posttraumatic stress disorder and general psychopathology in children and adolescents following a wildfire disaster. *Canadian Journal of Psychiatry*, *50*(3), 137–143.
- McDermott, B. M., & Palmer, L. J. (2002). Postdisaster emotional distress, depression, and event-related variables: Findings across child and adolescent developmental stages. *Australian and New Zealand Journal of Psychiatry*, *33*, 855–863. <http://dx.doi.org/10.1046/j.1440-1614.2002.01090.x>
- McFarlane, A. C. (1987). Posttraumatic phenomena in a longitudinal study of children following a natural disaster. *Journal of the American Academy of Child and Adolescent Psychiatry*, *26*, 764–769. <http://dx.doi.org/10.1097/00004583-198709000-00025>
- Meiser-Stedman, R., Smith, P., Glucksman, E., Yule, W., & Dalgleish, T. (2007). Parent and child agreement for acute stress disorder, posttraumatic stress disorder, and other psychopathology in a prospective study of children and adolescents exposed to single-event trauma. *Journal of Abnormal Child Psychology*, *35*(2), 191–201. <http://dx.doi.org/10.1007/s10802-006-9068-1>
- Miller, P. A., Roberts, N. A., Zamora, A. D., Weber, D. J., Burleson, M. H., Robles, E., & Tinsley, B. J. (2012). Families coping with natural disasters: Lessons from wildfires and tornadoes. *Qualitative Research in Psychology*, *9*, 314–336. <http://dx.doi.org/10.1080/14780887.2010.500358>
- Monson, C. M., Rodriguez, B. F., & Warner, R. (2005). Cognitive-behavioral therapy for PTSD in the real world. Do interpersonal relationships make a real difference? *Journal of Clinical Psychology*, *61*(6), 751–761. <http://dx.doi.org/10.1002/jclp.20096>
- Muris, P., Meesters, C., Eijkelboom, A., & Vincken, M. (2004). The self-report version of the Strengths and Difficulties Questionnaire: Its psychometric properties in 8- to-13-year old non-clinical children. *British Journal of Clinical Psychology*, *43*(4), 437–448.

- National Institute of Mental Health. (2013). *Helping children and adolescents cope with violence and disasters. For parents of children exposed to violence or disaster: What parents can do*. Bethesda, MD: Author.
- Natural Resources Canada. (2014). *Wildland fire management: Balancing the bad and the good*. Retrieved from <http://www.nrcan.gc.ca/forests/fire/13143>
- Norris, F. H., Friedman, M. J., & Watson, P. J. (2002a). 60,000 disaster victims speak: Part I: An empirical review of the empirical literature, 1981–2001. *Psychiatry: Interpersonal & Biological Processes*, 65, 207–39. <http://dx.doi.org/10.1521/psyc.65.3.207.20173>
- Norris, F. H., Friedman, M. J., & Watson, P. J. (2002b). 60,000 disaster victims speak: Part II: Summary and implications of the disaster mental health research. *Psychiatry* 65, 240–60. <http://dx.doi.org/10.1521/psyc.65.3.240.20169>
- Parsons, P. (2016, May 3). Thousands flee from Fort McMurray wildfire in the largest fire evacuation in Alberta's history. *Edmonton Journal*. Retrieved from <http://edmontonjournal.com/news/local-news/fort-mcmurray-wildfire-pushed-back-even-as-temperatures-climb>
- Peek, L. (2008). Children and disasters: Understanding vulnerability, developing capacities, and promoting resilience. *Children, Youth, and Environments*, 18(1), 1–29.
- Poulsen, K. M., McDermott, B. M., Wallis, J., & Cobham, V. E. (2015). School-based psychological screening in the aftermath of a disaster: Are parents satisfied and do their children access treatment? *Journal of Traumatic Stress*, 28, 69–72. <http://dx.doi.org/10.1002/jts.21987>
- Pujadas Botey, A., & Kulig, J. C. (2014). Family functioning following wildfires: Recovering from the 2011 Slave Lake fires. *Journal of Child and Family Studies*, 23(8), 1471–1483. <http://dx.doi.org/10.1007/s10826-013-9802-6>
- Pynoos, R. S., Rodriguez, N., Steinberg, A. M., Stuber, M., & Frederick, C. (1998). *UCLA PTSD index for DSM-IV*. Los Angeles, CA: UCLA Trauma Psychiatry Service.
- Raulier, F., Le Goff, H., Gauthier, S., Rapanoela, R., & Bergeron, Y. (2013). Introducing two indicators for fire risk consideration in the management of boreal forests. *Ecological Indicators*, 24, 451–461. <http://dx.doi.org/10.1016/j.ecolind.2012.07.023>
- Rural Wildfire Study Group. (2013, February). How families are picking up the pieces of Slave Lake since the wildfires. *Municipal World*, 123(2), 25–26.
- Shallcross, L. (2012) A calming presence. *Counseling Today*, 54(8), 28–39.
- Stamps, L. S. (2003). Bibliotherapy: How books can help students cope with concerns and conflicts. *Delta Kappa Gamma Bulletin*, 70(1), 25–29.
- State of Queensland. (2007). *Calmer classrooms: A guide to working with traumatised children*. Queensland, Australia: Author. Retrieved from <http://education.qld.gov.au/schools/healthy/pdfs/calmer-classrooms-guide.pdf>
- Stein, B. D., Jaycox, L. H., Kataoka, S. H., Wong, M., Tu, W., Elliott, M. N., & Fink, A. (2003). A mental health intervention for schoolchildren exposed to violence: A randomized controlled trial. *Journal of the American Medical Association*, 290(5), 603–611. <http://dx.doi.org/10.1001/jama.290.5.603>.
- Steinberg, A. M., Brymer, M. J., Kim, S., Briggs, E. C., Ippen, C. G., Gully, K. J., & Pynoos, R. S. (2013). Psychometric properties of the UCLA PTSD reaction index: Part 1. *Journal of Traumatic Stress*, 26(1), 1–9. <http://dx.doi.org/10.1002/jts.21780>
- Stover, C. S., Hahn, H., Im, J. J., & Berkowitz, S. (2010). Agreement of parent and child reports of trauma exposure and symptoms in the peritraumatic period. *Psychological Trauma*, 2(3), 159–168. <http://dx.doi.org/10.1037/a0019156>
- Taylor, S. W., Stennes, B., Wang, S., & Taudin-Chabot, P. (2006). Integrating Canadian wildland fire management policy and institutions: Sustaining natural resources, communities, and ecosystems. In K. G. Hirsh & P. Fuglem (Eds.), *Canadian wildland fire strategy: Background syntheses, analyses, and perspectives* (pp. 3–26). Ottawa, ON: Canadian Council of Forest Ministers.
- Terranova, A. M., Boxer, P., & Morris, A. S. (2009). Factors influencing the course of posttraumatic stress following a natural disaster: Children's reactions to Hurricane Katrina. *Journal of Applied Developmental Psychology*, 30, 344–355. <http://dx.doi.org/10.1016/j.appdev.2008.12.017>

- Townshend, I., Awosoga, O., Kulig, J., Pujadas Botey, A., Shepard, B., & McFarlane, B. (2015). Impacts of wildfires on school children: A case study of Slave Lake, Alberta, Canada. *International Journal of Mass Emergencies and Disasters*, *33*(2), 148–187.
- Trickey, D., Siddaway, A. P., Meiser-Stedman, R., Serpell, L., & Field, A. P. (2012). A meta-analysis of risk factors for posttraumatic stress disorder in children and adolescents. *Clinical Psychology Review*, *32*, 122–138. <http://dx.doi.org/10.1016/j.cpr.2011.12.001>
- Whiting, J., & Lee, R. E. (2003). Voices from the system: A qualitative study of foster children's stories. *Family Relations*, *52*(3), 288–295. <http://dx.doi.org/10.1111/j.1741-3729.2003.00288.x>
- Worden, J. W. (2009). *Grief counseling and grief therapy: A handbook for the mental health practitioner* (4th ed.). New York, NY: Springer.
- Yelland, C., Robinson, P., Lock, C., La Greca, A. M., Kokegei, B., Ridgway, V., & Lai, B. (2010). Bushfire impact on youth. *Journal of Traumatic Stress*, *23*(2), 274–277. <http://dx.doi.org/10.1002/jts.2052>

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