

Intergenerational Trauma:

Convergence of Multiple Processes among First Nations peoples in Canada

Amy Bombay, MSc, Institute of Neuroscience, Carleton University

Kim Matheson, PhD, Department of Psychology, Carleton University

Hymie Anisman, PhD, Institute of Neuroscience, Carleton University

ABSTRACT

Stressful events may have immediate effects on well-being, and by influencing appraisal processes, coping methods, life styles, parental behaviours, as well as behavioural and neuronal reactivity, may also have long lasting repercussions on physical and psychological health. In addition, through these and similar processes, traumatic experiences may have adverse intergenerational consequences. Given the lengthy and traumatic history of stressors experienced by Aboriginal peoples, it might be expected that such intergenerational effects may be particularly notable. In the present review we outline some of the behavioural disturbances associated with stressful/traumatic experiences (e.g., depression, anxiety, posttraumatic stress disorder, and substance abuse disorder), and describe the influence of several variables (age, sex, early life or other experiences, appraisals, coping strategies, as well as stressor chronicity, controllability, predictability and ambiguity) on vulnerability to pathology. Moreover, we suggest that trauma may dispose individuals to further stressors, and increase the response to these stressors. It is further argued that the shared collective experiences of trauma experienced by First Nations peoples, coupled with related collective memories, and persistent sociocultural disadvantages, have acted to increase vulnerability to the transmission and expression of intergenerational trauma effects.

KEYWORDS

Stress, trauma, depression, PTSD, substance abuse, intergenerational

INTRODUCTION

1. Introduction and definition

Traumatic events exact an enormous psychological and physical toll on survivors, and often have ramifications that must be endured for decades. This includes emotional scars, and in many cases standards of living are diminished, often never recovering to levels that existed prior to the trauma. These traumas can occur at a

personal level (e.g., car accident, or rape) or at a collective level (war, natural disasters, or genocide), and the responses to such events are not identical. In the latter instance, there is now considerable evidence that the effects of trauma experiences are often transmitted across generations, affecting the children and grandchildren of those that were initially victimized. The present review is meant to describe the immediate and intergenerational impacts of traumatic



events in First Nations people. In this regard, particular attention is devoted to how intergenerational effects may come about, with particular focus on the influence of socioeconomic disadvantages (e.g., living conditions) and parental styles that might be secondary to traumatic events. Importantly, however, collective trauma may have profound intergenerational effects that infiltrate beyond easily observed or measured factors that come from the survivors telling and retelling of trauma (or in contrast, by the deep silence, that is common among some survivors). In her persuasive work, Marianne Hirsch (2001) refers to “postmemory,” which may be particularly poignant in the intergenerational transmission of trauma, as it can also be viewed as a “reclaiming of memory.” She states “‘postmemory’ most specifically describes the relationship of children of survivors of cultural or collective trauma to the experiences of their parents, experiences that they ‘remember’ only as the narratives and images with which they grew up, but that are so powerful, so monumental, as to constitute memories in their own right” (pg. 16).

Before the arrival of Europeans, Aboriginal groups¹ in North America were largely independent and self-governing, determining their own philosophies and approaches to cultural, economic, religious, familial, and educational matters (Lee, 1992; Royal Commission on Aboriginal Peoples (RCAP), 1996). Such healthy societies stand in sharp contrast to the conditions that currently exist in many First Nations communities. Years of colonization and attempts at forced assimilation have led to the devastation of First Nations communities and cultures. For example, in North America, First Nations peoples encounter high levels of adverse childhood experiences, such as abuse, neglect and household substance abuse (Blackstock Trocmé & Bennett, 2004; Duran et al., 2004a; Koss et al., 2003). As well, relative to the general population, they are more likely to encounter stressful experiences in adulthood, including poverty and unemployment, violence, homicide, assault, and witnessing traumatic events (Bohn, 1998; Karmali et al., 2005; Manson, Beals, Klein, Croy, & the AI-SUPERPFP Team, 2005; Waldrum, 1997). Moreover, First Nations peoples are faced with high rates of discrimination (Ekos, 2006a,b) that may also function as a profound stressor (Kessler, Mickelson & Williams, 1999). According to Whitbeck and colleagues (2004a), the current health and social conditions, coupled with continued discrimination, act as reminders of, and are a continuation of, the historical traumas that persist in the thoughts of Aboriginal people and continue to impact them.

Historical traumas have included a broad range of events, some of which were experienced only by specific Aboriginal communities, whereas others were widespread and impacted a large majority of Aboriginal peoples. The

historical and contemporary traumas experienced may have had numerous intergenerational effects that have not been extensively examined. However, it is clear from studies in other populations and cultures (e.g., survivors of the holocaust during WWII) that the effects of trauma can be transmitted from parents to their offspring, just as there is intergenerational transmission of knowledge and culture. These have included vulnerability to posttraumatic stress disorder (PTSD) (Yehuda, Halligan & Grossman, 2001), general psychological distress (Kellerman, 2001a), difficulties in coping with stressful experiences (Baider et al., 2000), and poor attachment styles (Lyons-Ruth, Yellin, Melnick, & Atwood, 2005). In addition, there are still other potential effects on the mental health of First Nations that have not been evaluated, such as loss of culture and languages, loss of identity, including pride and a sense of kinship with other First Nations peoples. These consequences occur at the individual, family and community levels, all of which are connected and interrelated. Considering the significant role that trauma plays in the lives of First Nations peoples, it is important to identify mechanisms by which the cycle of trauma and stress repeats itself across generations in order to intervene and preclude the intergenerational cycle.

The following sections provide an overview of the intergenerational impact of trauma. The initial section will review current approaches to understanding trauma and its consequences, and will discuss some of the health problems that currently exist among First Nations peoples. Current traumatic events, or those of the relatively recent past, faced by First Nations people are provided in the second section within a historical context. This will be followed by a discussion of intergenerational transmission of trauma, and its implications for Aboriginal populations. The concepts of collective and historical trauma are then introduced, followed by the assessment of trauma and its psychological consequences. The final section will provide a summary of the findings, and will discuss their clinical implications and what can be done to mitigate the effects of trauma experiences extending across generations. Throughout this paper we make reference to a variety of pathological states (e.g., depression, anxiety and PTSD) and one might gain the impression that this type of focus alone is the benchmark by which to evaluate well-being in First Nations communities. In fact, this approach is taken because the ‘formal’ research that has been conducted typically involved evaluative tools that measured symptoms of these disorders. In fact, as discussed in later sections of this review, factors such as wellness and holistic health may be particularly important for First Nations individuals, and further that conceptualization and meanings related to trauma and well-being likely vary across diverse First Nations communities.



Trauma and the Stress Process

According to the current Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR; American Psychiatric Association (APA), 2000), a traumatic stressor is defined as an event that comprises actual or threatened death or serious injury, or alternative threats to an individual's well-being, as well as learning about the unexpected or violent death, serious harm, or threat of death or injury of a close associate or family member. This typically includes stressors such as assault, rape, child abuse, military combat, terrorism, and serious accidents or natural disasters. The difference between traumatic and non-traumatic stressors is, admittedly vague, likely stemming from the great inter-individual variability that exists with respect to appraisal of stressful/traumatic events (Anisman & Matheson, 2005). Further to this point, stressors that are considered "non-traumatic," such as financial problems or work stressors, may be associated with negative consequences as great as those provoked by traumatic events (Mol et al., 2005; Rosen & Lilienfeld, 2008). Non-traumatic stressors have also been shown to have additive or synergistic effects on health outcomes when combined with exposure to traumatic stressors (Chapman et al., 2004; Felitti et al., 1998; Monroe, Slavich, Torres, & Gotlib, 2007). Thus, in discussing the intergenerational transmission of health and social outcomes, it is important to consider both types of stressors.

The stress response

A "stressor" can be defined as a situation or event appraised as being aversive, in that it elicits a "stress response" that comprises activation or use of physiological or psychological resources and may provoke a subjective state of physical or mental tension (Anisman & Merali, 1999). Many components of the stress response serve adaptive functions that facilitate defensive responses and the maintenance of allostasis (i.e., activation of biological processes that are necessary to maintain the integrity and well-being of the individual). The overall response to stressors involves various neuroendocrine, immunological and behavioural components, and is commonly characterized by activation of the sympathetic-adrenal-medullary (SAM) system and the hypothalamic-pituitary-adrenal (HPA) axis, as well as neurochemical changes in several brain regions (Anisman, Merali & Hayley, 2008). The nature and magnitude of these responses depend on several factors, including the characteristics of the stressor, previous stressor experiences, genetic factors, and the personal resources available (Anisman & Matheson, 2005).

Although an individual's physiological responses to stressors typically serve in an adaptive capacity, if the stressor is particularly severe or persists over extended periods, these

biological systems may become overly taxed (referred to as allostatic overload), culminating in increased vulnerability to physical and psychological pathology (McEwen, 2000). In this regard, protracted or severe stressors may contribute to heart disease, high blood pressure, stroke, diabetes, and exacerbation of immunologically-related illnesses and neurodegenerative disorders (Anisman et al., 2008). In addition, stressor experiences may precipitate mental disorders, such as depression, PTSD and substance abuse disorders (Kessler, 1997).

Health of First Nations peoples

Based on data from the Indian Register in 2000, life expectancy at birth was estimated at 69 years for males and 77 years for females, which reflect differences of 8 and 6 years, respectively, from the life expectancies of the Canadian population (Health Canada, 2005b). Although 61 per cent of non-Aboriginal Canadians reported "very good" or "excellent" health, only 40 per cent of First Nations living on-reserve and 42 per cent living off-reserve reported their health status as being "excellent" or "very good" (First Nations Centre, 2005; Tjepkema, 2002). First Nations peoples are also more likely to experience chronic physical health problems such as diabetes, arthritis/rheumatism, high blood pressure, and heart disease (First Nations Centre, 2005; Tjepkema, 2002), and there is reason to believe that they suffer from disproportionately high levels of mental health problems, including depression, substance abuse and PTSD.

Depression

Major depression is characterized by either poor mood or anhedonia (diminished interest or rewarding value of otherwise pleasurable experiences or stimuli), accompanied by at least four symptoms related to either weight changes (decrease or increase), sleep disturbances (insomnia or hypersomnia), psychomotor retardation or agitation, fatigue, feelings of worthlessness or guilt, diminished cognitive functioning, and recurrent thoughts of death (APA, 2000). These symptoms differ across individuals, as do the effectiveness of various treatment strategies.

According to the First Nations Regional Longitudinal Health Survey (RHS) (First Nations Centre, 2005), approximately 30 per cent of First Nations people living on-reserve reported feeling sad, blue or depressed for two weeks or more. Similarly, off-reserve Aboriginals were twice as likely to suffer an episode of major depression in the past year compared to the general population (Tjepkema, 2002). It appeared that socioeconomic status and health behaviours partially accounted for these high levels, but Aboriginals were



Despite the high rates of trauma documented in First Nations communities in Canada, to our knowledge, systematic studies have not been conducted comparing prevalence rates of PTSD in First Nations people relative to those in the general Canadian population. However, in a sample of First Nations Residential School Survivors that had experienced abuse, 64 per cent were diagnosed with PTSD (Corrado & Cohen, 2003). Furthermore, the lifetime prevalence of PTSD among Northern Plains and Southwest American Indian veterans was approximately 50 per cent, nearly double that of European American veterans (Beals et al., 2002). Similarly, in a community based sample of American Indians from two reserves, the rate of lifetime PTSD was 15 per cent, making members of these reserves almost twice as likely to be diagnosed with PTSD compared to rates observed in the general U.S. population (Beals et al., 2005b). Although these rates are exceptionally high, they seem to vary appreciably across communities, from rates below the national average (Jones, Dauphinais, Sack, & Somervell, 1997) to rates as high as 21 per cent (Robin, Chester, Rasmussen, Jaranson, & Goldman, 1997).

Illness Comorbidity

frequently been associated with co-occurring anxiety (Nutt & Stein, 2006), cardiovascular disease and stroke (Bondy, 2007; Frasure-Smith & Lesperance, 2005), diabetes (Golden, 2007; Lustman & Clouse, 2007; Pirraglia & Gupta, 2007), neurodegenerative disorders such as Parkinson's and Alzheimer's disease, and multiple sclerosis (Griffin, Liu, Li, Mrak, & Barger, 2006; Lieberman, 2006; Mohr, 2007; Owens, 2002; Wheeler & Owens, 2005). Not unexpectedly, the presence of comorbid illnesses frequently complicates treatment of the depression itself (and the antecedent or concurrent distress), and limits recovery from co-occurring pathologies (Rosenthal, 2003).

There is little information regarding illness comorbidity among Aboriginal peoples. The evidence that does exist indicates that among Residential School Survivors, half of those individuals diagnosed with PTSD also had other cormorbid mental illnesses, such as substance abuse disorder, major depression and dysthymic disorder (Corrado & Cohen, 2003). Likewise, depression was significantly more prevalent in American Indians with diabetes (Sahmoun, Markland & Helgersen, 2007).

Numerous factors influence how, and the degree to which a stressor will engender a pathological outcome, including characteristics of the stressor (severity, chronicity, controllability), organismic variables (genetic factors, age, and sex), and personal resources such as coping skills (Kendler, Thornton & Prescott, 2001; Kessler, Foster, Webster, & House, 1992; Levinson, 2006). Of particular relevance to the present report is that experiential factors, including prior stressful encounters and early life trauma, may promote (or increase vulnerability to) pathology. Thus, in identifying health risk and protective (resilience) factors, it is not only important to consider an individual's current life circumstances and recent events, but to take into account past traumatic experiences. As well, the impact

of adverse health and social outcomes may be transmitted across generations, and hence analyses of the relation of stress and pathology ought to include an individual's familial history, and even the history of their cultural group. Such a perspective will enable development of successful intervention strategies, and may facilitate the development of evidence based preventative strategies.

Stressor characteristics influence well-being

In general, it seems that characteristics of the stressor, namely its controllability, predictability, ambiguity and chronicity, are all important factors in determining the stress response. Specifically, it has been shown that stressor controllability influences the magnitude of neurochemical changes associated with stressors, and may be fundamental in determining the psychological ramifications of the stressor experience (Diener, Kuehner, Brunsniak, Struve, & Flor, 2008; Ohira et al., 2008). Likewise, unpredictable events are typically viewed as being more aversive and having greater negative repercussions than predictable events (Baker & Stephenson, 2000; Zurita, Marinelli, Cuadra, Brandao, & Molina, 2000). Ambiguity and uncertainty regarding adverse events are likewise particularly stressful.

Although most stressors encountered on a day-to-day basis are acute, individuals frequently endure chronic stressors. These include work-related distress, financial impositions, long-term health problems, on-going discrimination, or a combination of different factors. Both acute and chronic instances of distress have been shown to be predictive of poor psychological health (e.g., Hammen, 2005; Serido, Almeida & Wethington, 2004). In addition, when acute stressors are superimposed on a backdrop of an ongoing chronic stressor, particularly marked negative effects may evolve (Van De Willige, Ormel & Giel, 1995), especially with respect to mental health (McGonagle & Kessler, 1990).

Appraisal and coping processes

When confronted with a stressor, individuals make appraisals regarding the threat, followed by appraisals concerning their ability or resources to deal with that threat (Lazarus & Folkman, 1984). Appraisals consist of a constellation of evaluative dimensions, including the threat or risk associated with the event, as well as the severity, controllability, predictability, ambiguity, and the meaning of the stressor. Variations along these dimensions are associated with perceived distress (Anisman & Matheson, 2005) and influence the coping methods selected, all of which affect emotional, behavioural and physiological responses (Aldwin & Yancura, 2004). In effect, the choice of coping strategies

might be fundamental in determining whether pathology will arise (e.g., Lazarus, 1996; Schnurr & Green, 2004).

Coping strategies can be classified into two general types; problem-focused and emotion-focused (Lazarus & Folkman, 1984). Problem focused strategies aim to manage or alter the stressor, and include problem solving, cognitive restructuring or positive growth, among others. Emotion-focused coping, directed at regulating the emotional response to the stressor, may comprise emotional expression, emotional containment, self- or other-blame, withdrawal, denial, and passive resignation. In addition, several alternative coping methods can be used, including cognitive restructuring (re-evaluating the threat or finding meaning), social support seeking, active distraction, religion, humor, wishful thinking, and rumination (Carver, Scheier & Weintraub, 1989; Matheson & Anisman, 2003). Although emotion-focused coping is often thought of as being maladaptive, it may actually be an effective strategy in some situations, particularly in emotionally charged situations, as it can facilitate the individual's ability to come to terms with their feelings, and in so doing, reduces distress (Stanton, Danoff-Burg, Cameron, & Ellis, 1994). Likewise, although avoidance often works against individuals' well-being in the long-run, it may provide temporary relief from an ongoing stressor, allowing the individual the opportunity to adopt more effective strategies (Suls & Fletcher, 1985).

Particular strategies are often thought to suit specific situations (Tennen, Affleck, Armeli, & Carney, 2000) as the adaptive or maladaptive nature of any particular coping strategy may vary depending on characteristics of the stressor, the type of health outcome being measured (Penley, Tomaka & Wiebe, 2002) and the way in which individuals use coping strategies in conjunction with one another (Kelly, Matheson, Ravindran, Merali, & Anisman, 2007). In this regard, it was suggested that individuals with the greatest flexibility in the selection of strategies, particularly the combination of strategies that they adopt in response to particular stressors, may be optimally equipped to deal with stressors (Anisman & Matheson, 2005). As will be discussed, interventions aimed at influencing appraisal processes and ameliorating ineffective coping strategies may diminish the negative impacts of stressors.

Social support and unsupport

Social support seeking is generally viewed as being among the most effective methods of buffering against stressor-provoked psychological disturbances (depression, anxiety) and compromised physical health (Thoits, 1995; Underwood, 2000). Social support can serve multiple functions, often combined with other strategies, and its



Although considerable research has focused on the benefits of social support on well-being, more recent attention has been given to the negative effects of unsupportive interactions (e.g., Ingram, Betz, Mindes, Schmitt, & Smith, 2001). Such unsupportive social interactions do not simply refer to a lack of support, but are specific (unhelpful or negative) responses received by a person under stress. These responses can take the form of behavioural/emotional disengagement, the obvious discomfort by others in dealing with a stressed individual, or they can involve forced optimism, criticism or blame (Ingram et al., 2001). The perceptions of such unsupportive actions by others have been associated with a range of negative health outcomes (Schrimshaw, 2003; Smith & Ingram, 2004), and it was reported that the adverse effects of unsupport occur not only when they come from members of one's group, but also from those that are not group members (Jorden, Matheson & Anisman, 2009).

Although the influence of recent stressors are most often considered in relation to pathology, distal events and prior episodes of depression are known to increase vulnerability to stress-related disturbances (Espejo et al., 2006; Hammen, Henry & Daley, 2000; Heim & Nemeroff, 2001). Indeed, adverse early life events (including neglect and poor parenting) have been shown to be particularly effective in increasing vulnerability to later stressor provoked anxiety and depression, PTSD and elevated risk of suicide (Heim et al., 2000; Kendler, Neale, Kessler, Heath, & Eaves, 1992; McCauley et al., 1997; Repetti, Taylor & Seeman, 2002). Thus, as will be discussed shortly, intervening in this cycle of trauma and illness may be important for preventing negative outcomes across generations.

implicated genetic factors in several illnesses including depression, anxiety disorders and alcohol dependence (Eley, Collier & McGuffin, 2002; Prescott & Kendler, 2000). Interestingly, it was shown that a genetic polymorphism (a gene mutation) will not necessarily result in expression of pathology, but may be evident provided that the individual had encountered a sufficiently severe stressful experience (Bradley et al., 2008; Caspi et al., 2003; Kaufman et al., 2004; Kendler, Kuhn, Vittum, Prescott, & Riley, 2005). Thus, it appears that interactions between genetic and environmental influences throughout the lifespan might underlie depression and PTSD vulnerability. This implies that for the expression of pathology to occur, adverse environmental experiences may be a fundamental element, and hence appropriate conditions that limit distress or facilitate effective coping strategies may serve in an intervention as well as a therapeutic capacity.

Resilience

Just as there are certain individuals/groups that appear relatively vulnerable to the effects of stressful events, or conditions that increase vulnerability, it seems that there are factors that influence resilience to the adverse effects of

Two relatively recent Canadian government policies that have affected a large portion of First Nations peoples in Canada include the policy of forcing Aboriginal children to attend Indian Residential Schools (mid-1800s to 1996) and the period known as the Sixties Scoop (1960s to 1990s), in which large numbers of children were taken from reserves, often placing them in distant non-Aboriginal families.² Although the government maintained that Residential Schools were established to save and protect Aboriginal people, rates of morbidity and mortality increased among those attending these schools (Kelm, 1998; RCAP, 1996). The decreased health among many students was due to

Furthermore, the large scale removal of Aboriginal children from their homes also resulted in deeply painful effects on the parents and extended families left behind. First Nations communities essentially suffered, as familial bonds were disrupted and often irreparably broken. Some researchers contend that parents were beset by feelings of powerlessness, guilt and shame, for not saving their children from being taken. There were also feelings of no longer being needed by their children (Feehan, 1996; Haig-Brown, 1988; Ing, 1991). In sum, the consequences of Residential Schools and the Sixties Scoop have gone far beyond those who were institutionalized, and have indeed affected individual communities, and First Nations peoples, in general.

To a considerable extent, given their history of acute and chronic stressors and traumas, First Nations peoples have demonstrated enormous resilience. Yet, the cumulative impact of this history is demonstrated in the consistent health and socioeconomic disparities that exist between First Nations and non-Aboriginal peoples in North America. First Nations people living on and off-reserve had significantly lower household incomes than non-Aboriginal Canadians (Drost & Richards, 2003). Inadequate housing

and crowding has also been a stressor that is common for Aboriginal peoples (Statistics Canada, 2008a). Finally, surveys from 2000-2003, indicated that less than half of First Nations adults on- and off- reserve had a high school education, compared with at least 75 per cent of the general population (First Nations Centre, 2005; Tjepkema, 2002). First Nations peoples also bear an increased risk of sustaining serious injuries, which is one of the leading causes of death in this group (Tjepkema, 2005; Wilkins & Park, 2004). As well, First Nations individuals were four times more likely to have encountered severe trauma compared to non-Aboriginals and reported particularly high incidents of various types of trauma, including assault, traumatic suicide and motor vehicle accidents (Karmali et al., 2005). In addition, Aboriginal children were more likely to experience childhood abuse and neglect, be raised in single parent households (Hull, 2006), and be raised by parents who abused alcohol, had a history of criminal activity, and suffered mental health problems (Blackstock et al., 2004). Studies among American Indians have demonstrated that they too were at higher risk of a variety of traumas in adulthood (Evans-Campbell, Lindhorst, Huang, & Walters, 2006; Indian Health Service, 2003; Manson et al., 2005; Perry, 2004) and childhood (Koss et al., 2003).

Although limited attention has been devoted to the distress of stigmatization and discrimination, these experiences function in a manner similar to other types of psychosocial stressors (Kessler et al., 1999). Discrimination is prominent in many different facets of life for First Nations peoples, including education (Archibald & Urion, 1995), health care (Browne & Fiske, 2001), employment (Kunz, Schetagne & Milan, 2001), and at every level of the justice system (Chartrand & McKay, 2005). This discrimination has encompassed violent events and the perpetuation of negative stereotypes of Aboriginals such as being cold/unfriendly, dirty, lazy, criminal, and alcoholics (Merskin, 2001; Vorauer, Main & O'Connell, 1998). According to a qualitative study among Aboriginals, these stereotypes and (negative) joking about Aboriginal peoples in an everyday context is a major source of distress (Iwasaki, Bartlett & O'Neil, 2004). Our own research indicated that 99 per cent of a primarily urban sample of First Nations adults reported experiencing at least one incident of discrimination, of varying severity, in the preceding year (Bombay, Matheson & Anisman, 2008a). Based on a series of studies among various American Indian and First Nations samples, perceived discrimination was associated with suicidal behaviours and ideation (Walls, Chapple & Johnson, 2007a; Yoder, Whitbeck, Hoyt, & LaFromboise, 2006), adult and youth alcohol abuse (Whitbeck, Hoyt, McMorris, Chen, & Stubben, 2001; Whitbeck, Chen, Hoyt,

& Adams, 2004b), gang involvement (Whitbeck, Hoyt, Chen, & Stubben, 2002a), problem behaviours among youth (Laframboise, Hoyt, Oliver, & Whitbeck, 2006), diabetes (Jiang et al., 2008), and depressive symptoms (Bombay et al., 2008a,b; Whitbeck et al., 2002b).

Intergenerational Transmission of Trauma

Traumatic experiences endured during childhood or as an adult, might profoundly influence the well-being of their offspring (Yehuda & Bierer, 2008). The generational interchange, specifically from parent to child, often termed intergenerational, multigenerational and transgenerational effects, like the immediate outcomes associated with a stressor, depend on a variety of psychosocial and socioeconomic factors. The transmission of stressor effects (within individuals and communities alike) have been explored in specific populations that endured collective trauma. Some of the research, frequently based on data from Holocaust Survivors and their family's, has implicated biological (largely neuroendocrine) changes, as well as the possible influence of parenting and attachment styles, in mediating the intergenerational effects of trauma. There exists a marked diversity of experiences among Holocaust Survivors, and a wide range of psychological symptoms have been documented, including denial, agitation, anxiety, depression, mistrust, intrusive thoughts, survivor's guilt, disorganized reasoning, and difficulty expressing emotions, although these were frequently at levels below those meeting the full criteria for a clinical diagnosis (Barocas & Barocas, 1980; Bar-On et al., 1998; Felsen, 1998; Neiderland, 1981; Sagi, Van IJzendoorn, Joels, & Scharf, 2002; Weiss, O'Connell & Siiter, 1986). In addition, the children of Holocaust Survivors were more vulnerable to the negative effects of stressors and more likely than controls to develop PTSD and depression (or subthreshold symptoms) when faced with stressful events (Baider et al., 2000; Yehuda, 1999; Yehuda, 2002). Intergenerational effects, like those reported among the children of Holocaust Survivors, have also been documented in other populations, including Japanese Americans subjected to internment during World War II (Nagata, Trierweiler & Talbot, 1999) and survivors of the Turkish genocide of Armenians (Kupelian, Kalayjian & Kassabian, 1998).

Despite numerous anecdotal accounts of similar intergenerational effects among survivors of trauma in Aboriginal groups, few studies empirically assessed this issue. Moreover, those that have, focused primarily on the influence of Residential Schools, even though First Nations peoples experienced a wide range of traumatic events. The RHS indicated that one-third of First Nations youth had at least one parent who had attended a Residential School,



and that adults reported that their parents' attendance at Residential Schools negatively affected the quality of parenting they received as children. Moreover, the majority of adults also indicated that their grandparents' attendance at Residential Schools negatively affected the parenting that their own parents had received. Consistent with the potential adverse intergenerational effects, the offspring of those who attended Residential Schools reported increased thoughts of committing suicide (First Nations Centre, 2005). Moreover, First Nations adults who had a parent who attended a Residential School reported higher levels of depressive symptoms, as well as increased adverse childhood experiences, adult traumas and perceived discrimination compared to First Nations adults whose parents did not attend (Bombay et al., 2008b).

Putative processes related to the intergenerational transfer of trauma: A familial perspective

Ordinarily, in assessing intergenerational effects of trauma, it is expected that a traumatic experience in one generation does not influence the probability of individuals in the next generation encountering an increased or diminished number of traumatic experiences. After all, if trauma experiences

were elevated in the second or third generation, then any effects observed might be due to the individuals own adverse experiences rather than events encountered by their parents or grandparents. In fact, stressful events may have ramifications that indirectly or directly affect subsequent generations (including the possibility that members of the later generations are more likely to encounter trauma). Thus, it is often difficult to disentangle genuine intergenerational effects from those that stem from particular environments common to both generations. However, one should not misconstrue this to suggest that effects in children under these conditions are unrelated to events experienced by members of the previous generation. The difficulty in this instance comes from (a) defining what specific factors actually promoted the poor psychological health of the offspring, and (b) the data obtained being essentially correlational in nature, thus not allowing for causal conclusions to be drawn.

The processes by which intergenerational trauma effects can be transmitted from one generation to the next may involve multiple factors that have either additive or synergistic effects, and there is no a priori reason to believe that these factors act comparably among all individuals. Figure 1 represents a potential route by which

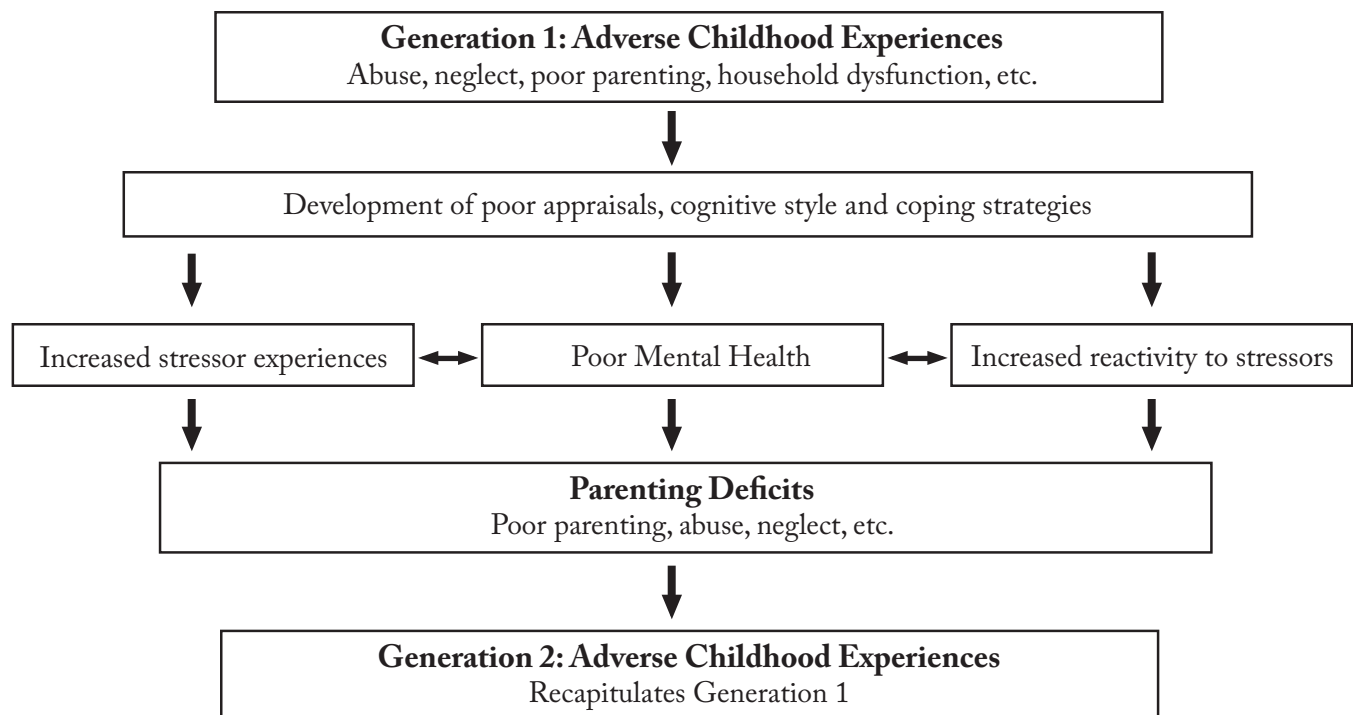


Figure 1. Mediators of the intergenerational transmission of trauma within families

The view portrayed is that adverse early life experiences (as well as those encountered in adulthood) may influence the way individuals appraise the world around them, and particularly the way they appraise stressful experiences and their ability to contend with these stressors. These appraisals, in turn, influence the coping strategies that are endorsed, with the understanding that these will be influenced by the coping styles (or coping predispositions) that individuals bring with them to any given situation. It is suggested that children who have experienced trauma might develop coping styles that are particularly ineffective or even counter-productive. Perhaps as a result of these ineffective coping styles, these individuals may be at increased risk of further stressor encounters (stress proliferation), increased psychological and neurochemical reactivity to stressors, and the promotion of poor mental health. These factors, alone or in combination, may result in impaired parenting and might thus increase the likelihood of early life trauma or stressors being encountered by their offspring. In this next generation, these adverse experiences might result in the recapitulation of the events outlined in the preceding generation, and so it goes.

Given that few studies assessed intergenerational trauma effects in First Nations peoples, it is understandable that limited data are available concerning the specific mechanisms by which the effects of trauma are transmitted from one generation to the next in this population. Thus, to a considerable extent, it is once again necessary to rely on studies of non-Aboriginals that focused on how trauma effects were transmitted from parents to their children.

the next generation. As alluded to earlier, child maltreatment may be accompanied by poverty, poor mental health, substance abuse, poor coping strategies, and physiological susceptibility to stressors, any of which might contribute to the transmission of negative outcomes. Indeed, it has been estimated that child maltreatment occurs in about 30 per cent of children whose parents had been maltreated (Bower & Knutson, 1996; Kaufman & Zigler, 1987; Oliver, 1993).

One has to be cognizant of the historical context in which the cycle of abusive experiences and subsequent parenting behaviours appear. Specifically, the effects of colonization and other traumatic events essentially eliminated many of the traditional parenting practices of some First Nations communities, replacing them with models of abuse and neglect.

Consequences of adverse childhood experiences

 National Aboriginal Health Organization (NAHO)
Organisation nationale de la santé autochtone (ONSA)
b̃a.CŦ m̃a.b̃'ᓁ̃ᓇ̃ᓂ̃ᓄ̃ᓈ̃ᔨ̃ᐱ̃ ᑭ̃ᓴ̃ᓂ̃ᑯ̃ᓵ̃ᖅᓂ̃ᕋ̃ᕐᑲ̃ᑐ̃ᓶ̃ᓪᓂ̃ᒃ

Negative appraisals about oneself and the world leads to exaggerated perceptions of the likelihood of future harm, and that maintaining a sense of threat and unpredictability about the future may contribute to anxiety, depression and PTSD following a traumatic experience (Daigneault, Hébert & Tourigny, 2006; Feiring & Cleland, 2007; Mannarino & Cohen, 1996). Indeed, negative perceptions of the self, the world and the future, were found to mediate the association between poor parenting and the subsequent development of depressive symptoms (Stark, Schmidt & Joiner, 1996). Similarly, dysfunctional attitudes mediated the association between parental care and children's depressive symptoms measured two years later (Liu, 2003).

Adverse childhood experiences lead to altered coping strategies. Coping strategies that individuals use to contend with stressors are typically viewed as moderators of the stressor's effects (i.e., coping might influence the potential

It has been suggested that children who are exposed to severe or chronic stressors, often endorse ineffective coping strategies. For example, children exposed to chronic parental conflict were more likely to use coping methods characterized by the release of frustration, risk-taking and confrontation (Shelton & Harold, 2007). Studies in children and adolescents have also revealed that those who reported a traumatic event, including community violence, sexual abuse and maltreatment, were more apt to use emotion-focused coping strategies, particularly avoidant coping, which may or may not have been an adaptive response (Dempsey, 2002; Spaccarelli, 1994; Thabet, Tischler & Vostanis, 2004). The use of ineffective coping styles among children was found to mediate the relationship between childhood adversities (e.g., community violence, parental conflict, child maltreatment) and negative childhood and adolescent outcomes (Caples & Berrera, 2006; Rodrigues & Kitzmann, 2007; Shelton & Harold, 2007; Spaccarelli & Fuchs, 1997). Although emotion- and avoidant-focused techniques may be adaptive in the short term (Merrill, Thomsen, Sinclair, Gold, & Milner, 2001), repeated reliance on these strategies may dispose these children to use them in other situations (Wadsworth & Berger, 2006). This might be especially likely if the child does not have an opportunity to learn other ways to process and respond to stressors (Kliewer, Fearnow & Walton, 1998; Lengua & Sandler, 1996). Ultimately, through training programs that focus on stress management techniques, including development of appropriate appraisal and coping strategies, it may be possible to diminish the adverse impact of stressful events. Importantly, given that appraisal and coping methods might be established early in life, it might be appropriate to develop programs that provide the required training during formative periods.

Several studies explored the mediating role of coping strategies in accounting for the relationship between childhood trauma and poor mental health outcomes during

adulthood. In this regard, the use of avoidant coping, including the use of illicit substances in an effort to cope, accounted for the relationship between childhood trauma and substance abuse, psychological adjustment and PTSD (Min, Farkas, Minnes, & Singer, 2007; Merrill et al., 2001; Runtz & Schallow, 1997; Schuck & Widom, 2001). Once again, few studies examined the influence of coping strategies on well-being among Aboriginal populations. However, in a sample of Navajo youth, voluntary and involuntary engagement (e.g., approach, confrontive) and disengagement (e.g., avoidance, escape) coping strategies were associated with depression (Wadsworth, Rieckmann, Benson, & Compas, 2004).

Childhood trauma influences mental health and stressor experiences

In addition to affecting appraisal and coping strategies, adverse childhood experiences are particularly influential in promoting poor mental health outcomes, a finding that has also been reported among First Nations and American Indians (Bombay et al., 2008b; Duran et al., 2004a; O'Connell et al., 2007). Adverse childhood experiences have also been associated with increased risk of encountering subsequent trauma in adulthood (termed stress proliferation). In studies among non-Aboriginals, adults who were abused as children were at greater risk of revictimization experiences, including rape or domestic violence, as well as a range of other stressful life events and circumstances (Banyard, Arnold & Smith, 2000; Banyard Williams & Siegel, 2001; Coid et al., 2001). In a sample of First Nations adults from across Canada, it was similarly found that those who reported adverse childhood experiences also reported experiencing greater traumatic experiences in adulthood (Bombay et al., 2008b), a finding also reported among American Indians (Kunitz et al., 1998; Yuan et al., 2006).

Several explanations have been advanced for instances of stress proliferation. According to one view, childhood adversity may be associated with a variety of adverse conditions that may contribute to elevated risk of still other types of stressors being encountered (Pearlin, Aneshensel & LeBlanc, 1997). By example, childhood abuse may negatively impact school performance, the ability to form and maintain close relationships and decision-making processes (Pearlin et al., 1997), any of which could directly and indirectly increase risk of stressor experiences in adulthood (e.g., poor scholastic performance may result in low socioeconomic status in adulthood, which itself is associated with increased exposure to stressful events) (Evans & Pilyoung, 2007; Wadsworth et al., 2008). It has

similarly been reported that depression and other problems in adolescence may be linked to increased exposure to these stressful life events, as well as additional problems, such as work disruption, exposure to violence, early pregnancy, and substance abuse (Fergusson, Boden & Horwood, 2007; Kessler et al., 1997; Storr, Ialongo, Anthony, & Breslau, 2007). Further, among women, a relationship existed between childhood sexual abuse and both PTSD and psychological distress, which in turn, were linked to later experiencing intimate partner violence (Engstrom, El-Bassel, Go, & Gilbert, 2008). In effect, just as stressful events could lead to depression, occurrences of depression and PTSD may be a factor that contributes to stress-proliferation (Engstrom et al., 2008; Hammen, 1991).

It will be recalled that adverse childhood experiences may promote negative cognitive styles. These negative cognitive styles were generally not associated with subsequent negative events considered to be out of the individual's control (e.g., death of a loved one), but were predictive of increased "dependent" events over which the person could have some control (e.g., fight with a friend) (Joiner, Wingate, Gencoz, & Gencoz, 2005). It has also been found that the degree to which an individual makes negative attributions is predictive of increased encounters with dependent stressful events in adulthood (Safford, Alloy, Abramson, & Crossfield, 2007; Simons, Angell, Monroe, & Thase, 1993). In addition, it seems that emotion-focused coping strategies may also be predictive of the occurrence of future stressors. For example, avoidance of problems that can be addressed, such as health or financial issues, can lead to further similar or related problems (Holahan, Moos, Holahan, Brennan, & Schutte, 2005).

Childhood experiences influences reactivity to stressors

Although the development of illnesses such as depression are usually ascribed to relatively recent adverse events, and PTSD is typically associated with trauma experienced in the preceding months, as described earlier, such illnesses may also be related to distal events (Kendler et al., 1992; Post, 1992; Yehuda, 2002). There is likewise evidence from clinical studies that previous stressor experiences influence vulnerability to later depressive illness, in that less intense stressors will provoke a depressed mood among individuals that had previously been traumatized. Thus, it was suggested that the magnitude of the neurochemical changes underlying depression may evolve with repeated stressor or illness episodes (Kendler, Thornton & Gardner, 2000; Post, 1992). It seems that although the immediate effects of stressors are relatively brief, the ramifications



of such experiences may be exceedingly long-lasting. As such, when considering the impact of stressors, particularly when applied on a background that does not lend itself to effective coping, it is essential to consider that sensitized neurochemical processes, acting in concert with ongoing psychosocial stressors, may engender particularly adverse outcomes.

Although studies in animals have indicated that sensitized neurochemical processes can be established at any time in the organism's life, it appears likely that early life events may have particularly profound repercussions. In this regard, it has frequently been reported that stressors encountered in rodent pups may profoundly influence responses to stressors encountered during adulthood. For example, in rat pups, both extended periods of separation from the mother, and poor nurturing (limited attention from the mother in the form of low levels of licking and grooming) were associated with exaggerated adult stress responses (Meaney, 2001). It was similarly shown that systemic insults during the first few postnatal days, such as a strong immunological activation, greatly increased stress responses during adulthood (Shanks et al., 2000). In contrast, high levels of stimulation (high levels of attention received from the mother) attenuated age-related learning disturbances and resistance to the effects of later stressors (Anisman, Zaharia, Meaney, & Merali, 1998; Liu et al., 1997; Meaney, 2001). Essentially, it was suggested that maternal behavioural style acted to "program" neuroendocrine stress responses of pups to later stressor experiences (Meaney, 2001).

From the perspective of the present review, it may be particularly significant that stress resiliency of pups that received high levels of maternal care, was stably transmitted between generations. Moreover, studies in which cross-fostering procedures were used (i.e., pups were transferred from their biological mother to one that displayed either high or low maternal care) indicated that offspring inherit the behaviour from their nursing mother, rather than from the biological mother (Champagne & Meaney, 2001). Although this has most commonly been assessed in rodents, the intergenerational transmission of stress reactivity has also been reported in primates and humans and may involve peptides associated with the stress response or those that are associated with attachment, such as oxytocin (Champagne, 2008). It is also significant that the stress reactivity and health outcomes of pups as a function of early life stimulation (or neglect), may also be fundamental in establishing relationships between the mother and offspring in the next generation. Thus, Champagne and Meaney (2001) suggested that in order to fully appreciate factors

that favor stress vulnerability (or resilience) within the family unit, in addition to the experiences of the individual, is an important level of analysis. It is interesting that this view, based primarily on studies in animals, maps precisely onto studies in humans indicating that parental behaviours provide the basis for relatively stable characteristics (e.g., self-esteem, self-efficacy, and self-reliance) that buffer the individual against the negative consequences of stressful experiences, and also serve to facilitate the development of skills that enable effective coping (Miller, Warner, Wickramaratne, & Weissman, 1999; Roberts, Gotlib & Kassel, 1996).

Before leaving the issue of early life effects on adult responses to stressors, it ought to be underscored that stress experienced by a woman while pregnant may also have repercussions on the offspring. In effect, just as drugs (legal and illicit) and alcohol can affect the offspring, so too can psychological events. It has been suggested that stressful events, by virtue of their effects on neuroendocrine functioning (e.g., changes of the stress hormone cortisol) and on genetic processes (i.e., transcriptional processes), can affect the development of the fetal brain and permanently affect neurochemical functioning (Owen, Andrews & Matthews, 2005). Moreover, it was suggested that the prenatal environment can interact with subsequent early life experiences to alter the adult stress response (Francis, Szegda, Campbell, Martin, & Insel, 2003).

Parental mental health and stressors lead to parenting deficits and poor childhood outcomes

Parental mental health and stressors appear to be associated with negative parenting, which in turn, may influence well-being in their offspring. Highlighting the potential widespread impact of poor parental mental health are reports that clinically significant depression among mothers with young children can be as high as 35 per cent (O'Hara & Swain 1996). Comparable data in Aboriginal women with children are currently unavailable, although there is no reason to believe that rates would be lower in this group. Indeed, given that depression was found to occur at a higher rate in First Nations women than in the general population (MacMillan et al., 2008), it is likely that the rates would also be elevated in First Nations women with children. Indeed, it was reported that among women who were enrolled in a prenatal outreach program, depression in pregnant Aboriginal women was more frequent than in non-Aboriginal Canadian women (Bowen & Muhajarine, 2006).

There are several possible routes by which parental mental health might impact children. These include genetic factors, the interaction between genetic and environmental



It appeared that discrimination-related stressors can also indirectly impact parenting behaviours. In exploring the relation between perceived discrimination and parenting among African American mothers, perceived discrimination was found to predict increases in mothers' stress-related health problems, which in turn, were associated with depressive symptoms. Moreover, elevated depressive symptoms among those perceiving high levels of discrimination was the proximal variable associated with decreases in mothers' competence-promoting parenting, which comprised vigilant parenting, warmth and closeness with low levels of repetitious arguing (Brody et al., 2008). Although these factors have not been examined among Aboriginal parents, it seems likely that the high rates of discrimination encountered, which are associated with greater depressive symptoms, might likewise influence parenting behaviours.

Other modes of trauma transmission

The previously described mechanisms are not the only means by which trauma is transmitted through families. For example, in addition to influencing health and social outcomes of children through parenting practices, inadequate role modeling may also play a role in the transmission of behaviour. According to social learning theory (Bandura, 1977), children learn vicariously by observing and imitating their parents. This conceptual framework has also been proposed to be a contributing factor in cycles of violence within families (O'Keefe, 1994; Truscott, 1992). For instance, it was reported that experiencing violence while growing up was related to favorable attitudes towards violence against both children and spouses, which predicted engagement in such violence (Markowitz, 2001). Although this study did not explore the transmission of such attitudes, it was reported that American Indian women indicated a higher threshold of violence, compared to European American women, before acknowledging these acts as reflecting domestic abuse (Tehee & Esqueda, 2008).

In the case of children of survivors of the Holocaust, there has been a focus on avoidance of further adverse experiences as reflected by messages such as "be careful" and "don't trust anybody" (Kellerman, 2001b). At the same time, many Holocaust Survivors were reported to have withheld any communication about their experiences, an intergenerational communication pattern that was termed the "conspiracy of silence" (Danieli, 1998). Children who grew up in families in which there was no outright communication regarding the parents' trauma, but where the

trauma was silently present in the home (i.e., communicated nonverbally), also seem to be more vulnerable to intergenerational transmission of trauma (Kellerman, 2001b; Wiseman et al., 2002). The notion of silence is particularly relevant to survivors of Residential Schools, as we found that children of Survivors reported very little communication by their parents regarding their time at Residential School (Bombay, Matheson & Anisman, 2007).

Collective and Historical Trauma

As discussed in previous sections, the impact of historic and collective traumatic events on Survivors and the offspring of Survivors have been documented in some cultures, most notably among descendants of Jewish Holocaust Survivors (Yehuda & Beirer, 2008). More recently, it was reported that the children of survivors of Indian Residential Schools displayed poorer well-being (e.g., elevated depression) than the offspring of Aboriginals that had not attended Residential Schools (Bombay et al., 2008b; First Nations Centre, 2005). These studies, together, indicate that children of individuals exposed to sustained life-altering traumas are at risk for various health disturbances. However, these studies have largely focused on *individual* reactions associated with trauma, and are limited in defining the pathological outcomes associated with trauma effects on whole communities.

Like the survivors of the Holocaust, those of Residential Schools were not the victims of historically isolated events. Numerous assaults against Aboriginal peoples in North America (and elsewhere) have persisted for generations. These cumulative assaults were evident and manifested in battles over land rights, loss of culture, language, and identity, as well as poor health and social conditions. It has been suggested that these consequences of past trauma act as daily reminders of the many indignities committed against their group, and when faced with discrimination, Aboriginal peoples view such incidents in the context of a historical pattern of state and individual behaviour (Evans-Campbell, 2008; Whitbeck, Adams, Hoyt, & Chen, 2004a).

Collective trauma

Collective traumatic events can be directed at groups based on political, racial, religious, or cultural beliefs, and can be as random as single natural disasters or those purposely conducted for an extended period (Jorden et al., 2009), as in the case of Residential Schools. It has been suggested that focusing solely on individual experiences has resulted in the collective experience being overlooked, despite the



profound impact of collective trauma (Denham, 2008; Somasundaram, 2007). Specifically, collectively experienced traumas have unique social and psychological trajectories, and their consequences may be aligned with collective responses and interpretations (Abramowitz, 2005; Elsass, 2001; Summerfield, 1999). In addition to the additive effects of individual traumas, there are effects of collective trauma at the family and community levels that modify social dynamics, processes, structures, and functioning. For example, community level changes in the aftermath of mass trauma have included erosion of basic trust, silence, deterioration in social norms, morals and values, and poor leadership (Catani, Schauer & Neuner, 2008; Commission for Historical Clarification, 1999; Somasundaram, 2007).

Parenthetically, in the present review we deal primarily with major events that comprised obvious trauma. Some individuals, when they hear of collective disasters such as the Exxon Valdez oil spill, think of the ecological impact, and appropriately so, yet fail to recognize that such events also have marked repercussions on indigenous human populations. In this regard, it was reported that following the spill, native Aleuts were twice as likely to present with PTSD and generalized anxiety disorder than were non-natives (Palinkas, Downs, Patterson, & Russell, 1993). Not only were individual mental health issues affected, but community-level effects were reported, including the decline in traditional social relations within families and the community, a decline in subsistence production and distribution activities, and perceived increases in the amount of, and problems associated with, drinking, drug abuse and domestic violence. It was suggested that the natural resources destroyed by the oil spill did not simply reflect a financial loss, but undermined the Aleut identity, social organization and ideology, and actually disturbed the symbols fundamental to native culture being transmitted across generations (Palinkas et al., 1993). It may be important to recognize the manifestations of collective trauma, so that effective interventions at the community level can be instituted in such complex situations. The appropriateness of the interventions will depend on the specific consequences of the trauma (e.g., depression and anxiety vs. PTSD), which may vary as a function of the type and characteristics of the trauma experienced.

Historical trauma

In addition to considering the collective nature of some traumatic events, it may be important to consider the traumatic events that the group had previously experienced. Just as the characteristics of stressors influence an

individual's reaction, the characteristics of group-based stressors and of the group's history of stressor encounters may influence responses elicited by newly encountered stressors or those in the recent past. For example, groups with a history of numerous collective traumas that were intense, long lasting and affected a large proportion of the group, might result in group members and the group as a whole being particularly vulnerable to individual and community dysfunction. One can imagine, for instance, that shared collective experiences, and the retelling of these experiences over generations, may result in sensitized responses to subsequently encountered adverse experiences. Indeed, this vulnerability, to a considerable extent, describes the current position of many First Nations peoples, as the numerous collective traumas endured which were often intense, lasted from first contact until the present day and impacted most members of this group. This may have been compounded by the suppression of spiritual and traditional practices during this time.

In considering the cumulative impacts of the many traumas faced by Aboriginal peoples, it has been proposed that "Historical Trauma" or "soul wound" contributes profoundly to current well-being (Brave Heart, 1998; Brave Heart, 2003; Duran & Duran, 1995; Duran, Duran, Brave Heart, & Yellow Horse-Davis, 1998). Similar concepts have also been discussed (i.e., historic trauma and historic trauma transmission) in Canadian publications (Wesley-Esquiaux & Smolewski, 2004). Historical trauma in this context has been defined as cumulative emotional and psychological wounding over the lifespan and across generations, emanating from massive group trauma experiences (Brave Heart, 2003). Particularly germane to this definition is that the collective, complex trauma is inflicted over generations on a group of people who share a specific identity or affiliation, such as ethnicity, nationality or religion (Brave Heart, 1999; Brave Heart & DeBruyn, 1998). This perspective allows events occurring across generations to be seen as part of a single traumatic trajectory, thereby expanding focus from isolated impacts of single events to the synergy associated with numerous assaults that occurred over time (Evans-Campbell, 2008). Indeed, historic trauma has been suggested as being a contributing factor for the high prevalence rates of mental disorders and social problems among First Nations and other Aboriginal groups (Braveheart-Jordan & DeBruyn, 1995; Duran & Duran, 1995; Duran et al., 1998; Manson et al., 1996; Robin, Chester & Goldman, 1996; Stamm & Stamm, 1999).

Brave Heart (2003) documented typical symptoms or reactions to historical trauma, which they termed the



“Historical Trauma Response” (HTR) that comprised depression, self-destructive behaviour, suicidal thoughts and gestures, anxiety, low self-esteem, anger, and difficulty recognizing and expressing emotions. As well, it may include substance abuse, often as an attempt to avoid painful feelings through self-medication. Unresolved grief is an associated affect that accompanies HTR, and was described as the impaired mourning that comes from generational trauma (Brave Heart & DeBruyn, 1998). Despite the broad acceptance that this conceptual framework has received by both health researchers and by Aboriginal communities, there has been little scrutiny of the concept, and its definition and constituent characteristics have not been well conceptualized or operationalized, although initial steps have been taken to do so (Evans-Campbell, 2008; Whitbeck et al., 2004a). In attempting to provide clarification and to encourage development of the concept, Evans-Campbell (2008) outlined distinguishing characteristics of a historical traumatic event that can lead to HTR: 1) the events were widespread in many communities and many individuals were affected; 2) the events engendered high levels of distress and collective mourning in contemporary communities; and 3) events were perpetrated by out-group members with purposeful and often destructive intent.

Unfortunately, much of the literature discussing historical trauma has been limited to theoretical discussions. Nevertheless, Whitbeck et al., (2004a) attempted to empirically link symptomatology to the historical traumas, by first establishing that historical loss is part of the cognitive world of contemporary American Indians, and second, by linking this sense of loss to symptoms. In their attempt to explore the extent to which American Indians contemplate their history or link events of the past to current community functioning, Whitbeck et al., (2004a) conducted focus groups to examine awareness of historic events and attitudes toward tribal history’s impact and importance within participants’ communities. This study led to the development of the Historical Loss Scale, which enumerates the losses identified by the focus groups, and asks respondents how frequently these losses came to mind.

The historical loss scale was then administered to parents with children ages 10-12 from four American Indian and First Nations communities. Although respondents were usually one generation removed from the Residential School era and several generations removed from the earlier collective traumas, the majority of these parents at least occasionally thought about these historical losses (e.g., loss of language, culture, land, tradition and respect for traditional ways). Moreover, many reported feelings of loss related to Residential School experiences,

broken promises and negative treatment by the government. These perceptions were associated with anxiety/depression (e.g., feeling anxiety or nervousness, loss of concentration, feeling isolated, and loss of sleep), anger/avoidance (e.g., anger, rage, shame, fear/distrust of white people, and avoidance of places that served as reminders of losses) (Whitbeck et al., 2004a), and greater experiences of discrimination and alcohol abuse (Whitbeck et al., 2004b). Furthermore, it was suggested that the indirect effect of perceived discrimination on substance abuse may be mediated by feelings related to historical loss. Essentially, perceptions of discrimination act as a reminder of historical trauma and loss, and culturally shared stressors experienced, leading to adverse outcomes. Evidently, the numerous assaults against First Nations peoples continue to affect their perceptions and impinge on their psychological and physical health.

One of the shortcomings of the current trauma literature is that the dominant frameworks do not address how historical traumas influence interpretation or reactions to contemporary traumas, or how historical and present-day trauma may interact (Evans-Campbell, 2008; Whitbeck et al., 2004a). To meet this perceived need, Evans-Campbell and Walters (2006) developed the concept of “Colonial Trauma Response” (CTR). Although historical trauma specifically focuses on historical collective traumatic events and responses, CTR is a complex set of both historical and contemporary trauma responses to collective and interpersonal events. From this perspective, discriminatory events (or other perceived injustices) an individual currently experiences, may be interpreted, perhaps unconsciously, as a continuation of the racist historical treatment of First Nations peoples (Evans-Campbell, 2008).

Assessment of Trauma

It has been suggested that the failure to elicit information about an individual’s trauma history is a frequent diagnostic error made by clinicians (Amaya-Jackson et al., 1999; Davidson, 1999; Frueh et al., 2002), particularly as similar stressors can lead to a variety of outcomes (McQuaid et al., 2001). Unfortunately, although individuals with mental health disorders, such as depression, PTSD and substance abuse disorder, are among the most likely to utilize primary care services, they are commonly not screened for these mental health problems, leaving many undiagnosed (Coyne et al., 1994; Mueser et al., 1998; Olfson et al., 2003; Schonfeld et al., 1997) and hence, untreated. Indeed, the addition of specific trauma-screening questions as part of an initial intake procedure greatly increased the likelihood of obtaining information about past traumatic experiences, as



well mental health diagnoses increased from 5 per cent to 19 per cent (Cusack et al., 2004).

Although some studies have suggested that First Nations peoples in Canada are satisfied with general health care, it has also been reported that First Nations peoples in Canada find it difficult to specifically access *mental health* services (First Nations Centre, 2005; Wardman, Clement & Quantz, 2005). Clearly, trauma plays a large role in the lives of many First Nations people, and therefore efforts should be made to address these issues given that they have multiple negative mental health implications. Improving detection of trauma and trauma-related disorders may be a necessary step to addressing the health and mental health issues experienced by First Nations peoples. Several approaches to such assessment procedures can be used, ranging from full-length diagnostic interviews to short self-report surveys. It is beyond the scope of this review to provide a detailed description and appraisal of all the available measures and their respective psychometric properties, but some examples of approaches to screening for exposure to trauma, as well as measurement of responses to trauma are provided in the ensuing section.

Assessing exposure to trauma

As discussed earlier, it is not sufficient simply to know that an individual has been traumatized by an event, as it is also important to ascertain the specific details of the stressor with respect to its type, duration, frequency, and severity, as well as whether multiple traumas (stressors) had been experienced. Such a thorough assessment is essential, as (a) individuals who had experienced trauma are at greater risk for trauma recurrence than individuals without a history of trauma and (b) multiple trauma experiences have greater adverse effects on mental health outcomes than do single events (Banyard et al., 2001; Follette et al., 1996). In fact, given the interrelations between multiple forms of childhood adversities and adult traumas experienced, not assessing such experiences may be counter-productive in a clinical and in an experimental setting (Dong et al., 2004; Horwitz et al., 2001).

Traumatic Life Events Questionnaire.

The Traumatic Life Experiences Questionnaire (Kubany et al., 2000) is a scale that elicits information on a range of potentially traumatic events that can be used for both clinical and research purposes. The measure assesses experiences regarding 23 types of potentially traumatic events (e.g., natural disasters, accidents and assaults), and asks whether exposure to events resulted in experiencing fear, helplessness, or horror, making it possible to determine

whether Criterion A1 and A2 (for a PTSD diagnosis based on the DSM-IV) are met. Additional probes ask about the frequency of an event, when it occurred, and which event caused the most distress.

When a detailed evaluation of childhood trauma is required, several options are available, including the Childhood Trauma Questionnaire (CTQ) (Bernstein et al., 2003), and the Child Maltreatment Interview Schedule (CMIS) (Briere, 1992).

Assessing responses to trauma

Given that traumatic events have been experienced and that these have been reliably determined, assessment of behavioural disturbances follows. There are several measures available concerning the impact of trauma, each with some advantages and disadvantages. Measures vary in their sensitivity, specificity and clinical utility for different settings and populations. Semi-structured interviews consist of formalized, set questions or themes that allow trauma survivors an opportunity to talk about their experiences using their own language, and allow new questions to be introduced during the interview. Self-report instruments can also be used to assess responses to trauma, and are efficient as they do not require the expertise needed for most diagnostic interviews, and usually take relatively little time to complete.

Assessment of posttraumatic stress disorder

Structured Clinical Interview for DSM-IV (SCID) – PTSD module. The Structured Clinical Interview for *DSM-IV* (SCID) (First et al., 1997) is used to assess Axis I and Axis II psychiatric disorders, and is thought to be the current “gold standard” approach. This instrument is designed to be administered by a clinician or trained mental health professional. In addition, for the purposes of some research studies, non-clinician research assistants who have extensive experience with the study population in question have been trained to use the SCID. The PTSD model takes approximately 15–45 minutes to complete, and can be administered alone or as part of the full SCID interview. The SCID contains a PTSD-specific module that has questions related to each of the *DSM-IV* diagnostic criteria. First, screening questions are asked to determine whether individuals have ever experienced a traumatic event, in which a few examples of traumatic events are given. The PTSD module uses standard prompt questions to assess each symptom, and the interviewer then rates each symptom as either inadequate, absent, subthreshold, or threshold. Only symptoms receiving the latter rating are considered to be present. This method allows the interviewer to use



symptom-specific questions and clinical judgment to determine whether the interviewee meets diagnostic criteria for a disorder.

The use of dichotomous scoring regarding item presence and symptom severity is considered by some to be a limitation, as psychological symptoms are generally considered dimensional rather than dichotomous.

Clinician Administered PTSD Scale (CAPS). The Clinician-Administered PTSD Scale (CAPS) (Blake et al., 1990, 1995) is an interview that corresponds to the DSM-IV criteria for PTSD, and can be used to make a current (past month) or lifetime diagnosis, or to assess PTSD symptoms over the past week. After a life event checklist is administered to identify exposure to stressors, CAPS items are asked in reference to traumatic stressors. The interview assesses the core symptoms of PTSD on 0 to 4 scales with respect to their frequency and intensity. The CAPS can provide a continuous or dichotomous measurement of PTSD.

The CAPS was designed to be administered by a trained health professional that has a working knowledge of PTSD, but can also be administered by other appropriately trained individuals. The extended time (40-60 min.) typically required to administer this measure, makes it less appealing for use in routine clinical practice or when a quick diagnosis is needed.

Impact of Event Scale-Revised (IES-R). The IES-R (Weiss & Marmar, 1997) is a 22-item self-report measure that assesses current subjective distress for any specific life event, but is not meant to provide a diagnosis for PTSD. The IES-R was developed to parallel the DSM-IV criteria for PTSD and consists of intrusion, avoidance and hyperarousal subscales. This easily administered scale requires only 5-10 minutes to complete. A meta-analysis of studies using the IES-R concluded that cultural differences were relatively insignificant in the development of PTSD as measured by IES-R (Yehuda, 2002). It has also been reported that the IES-R is effective in identifying PTSD symptoms in substance use disorder populations. A drawback to the IES-R is that there is no specific cut-off score corresponding to particular severity of PTSD, and various studies have used scores ranging from 19-30 to suggest significant risk for PTSD (Azoulay, 2005; Jones et al., 2004).

Assessment of depression and other trauma related disorders

Depression, substance abuse and other anxiety disorders often occur in conjunction with stressful and traumatic experiences, and are frequently comorbid with PTSD. Although teasing these apart is difficult due to overlapping

symptoms, they appear to be distinct reactions (Grant et al., 2008). Accordingly, evaluation of individuals who have or may have experienced trauma should also include assessment of these psychological disturbances. When used with a trauma population, in addition to the specific PTSD module, the SCID modules for other anxiety, affective and substance abuse disorders can be administered.

Various self-report measures exist for measuring depressive symptoms, although these are not meant for a clinical diagnosis. The Beck Depression Inventory (BDI) (Beck et al., 1961) is a commonly used multiple-choice self-report composed of 21 questions, each answer being scored on a scale value of 0 to 3. There is also a 13 item version of this scale which correlates highly with the 21-item scale (Beck & Beck, 1972), and a revised version that is copyrighted (Beck et al., 1996).

The Hamilton Depression Rating Scale (HDRS) (Hamilton, 1960; Hamilton, 1967) is commonly used as a clinician administered and scored interview that requires periodic inter-rater reliability checks. The first 17 questions of this scale contribute to the total score, and questions 18-21 are recorded to give further information about the depression (e.g., paranoid symptoms), but are not part of the scale. The HDRS was designed to be administered by clinicians, but can also be administered by non-clinicians trained in its use.

The presence of substance abuse should also be considered, as it is known to limit the effectiveness of standard treatments of other psychiatric conditions, such as PTSD and depression. Assessments can be conducted using any of several substance abuse self-report measures, such as the Michigan Alcoholism Screening Test (Selzer, 1971) or the Drug Abuse Screening Test (Skinner, 1982).

What to use

The accuracy of assessment of PTSD and other trauma related symptomatology can be maximized by using both interview and self-report methods. The use of multi-method assessments has been recommended to overcome potential psychometric limitations existing in any one instrument, and a similar two-stage approach for assessing the mental health of trauma survivors has also been recommended (Keane et al., 1987; Shrout et al., 1986). Specifically, trauma survivors are initially screened for trauma exposure and/or trauma related psychological responses using self-report instruments, which is then followed by a diagnostic interview for those who are at risk of having a disorder based on the initial screenings. Such a multi-method assessment can help to avoid biases that lead to diagnoses of PTSD based on individual or cultural factors.

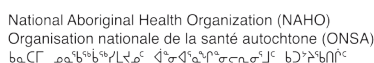


Cross-cultural assessment considerations

As previously discussed, individuals within a culture vary in the extent to which they adopt the values, beliefs, behaviours, and norms promoted by their culture. Just as cultural factors need to be considered in the assessment of mental health across groups, the differences in the degree to which an individual identifies with their group and/or their degree of acculturation needs to be considered in order to account for within group difference. Thus, just as such factors are important for clinicians in making diagnoses and planning treatment strategies (Atkinson et al., 1998; Berry, 1990; Castillo, 1997), determining factors such as identity and acculturation may be essential for research to determine the source for within group differences (van de

Cross-cultural assessment considerations in Aboriginal studies

Of course, it may be that some measures are suitable only for certain Aboriginal samples. For example, the same depression survey that was used in the AI-SUPERPPF was administered to a large sample of First Nations women living on-reserve in Ontario (MacMillan et al., 2008). Although it was reported that several AI-SUPERPF participants found some of the terms used in the depression scale difficult to appraise (e.g., concepts related to time) (Beals et al., 2005), the pilot study conducted in Ontario did not identify these or similar issues, and the measure was deemed appropriate for this sample (MacMillan et al., 2008). Similarly, a scale measuring Anxiety Sensitivity, which functions as a vulnerability factor for anxiety disorders (Eifert et al., 1999), was found to be psychometrically sound



Historic and collective trauma experiences have not been the purview of any one group. Historically, many cultural groups have been victimized, as have different First Nations groups. Although mental illness is a major problem in the First Nations population as a whole, there have been few attempts to develop appropriate measurement instruments that focus on PTSD, depression, substance abuse, or most other conditions. Likewise, most empirical studies of Aboriginal health have not employed measures of well-being and holistic health, in conjunction with typical measurement instruments. Furthermore, it is almost invariably the case that the assessment instruments that are used typically do not consider historical victimization as a component of a diagnosis, despite the increasing evidence suggesting direct or indirect intergenerational transfer of traumatic experiences. As indicated earlier, there have been instruments developed to assess historical trauma (Whitbeck et al., 2004a), that could potentially serve as an adjunct of other devices that are used in the assessment of psychopathology.

Beyond the well-known short-term effects of stressors, there is considerable evidence indicating that stressful events may have long-term repercussions on psychological and physical pathologies. Through the sensitization of neuronal and hormonal processes induced by a stressor experience, the impact of later stressors may be markedly enhanced. Alternatively, or in addition, traumatic events, particularly if these occur in early life, may alter cognitive processes so that appraisals and the ways of coping with stressors are altered, thereby increasing vulnerability to pathological outcomes in response to stressors that are subsequently encountered.

In the main, the present report focused on the adverse effects of individual and the impact of cultural traumas. Yet, when groups are exposed to trauma, a remarkably large portion show considerable resilience and do not display the profound symptomatology that might be expected. It has been suggested that resilience comes from multiple sources, including parenting (Gewirtz Forgatch & Wieling, 2008), gender, age, education, and individual factors such as temperament and coping methods, and particularly family, social and community support (Bonanno & Mancini, 2008; Landau, Mittal & Wieling, 2008; Rutter, 2006).

These alternative effects are not mutually exclusive, and it is possible that the same events in some individuals (or communities) increase vulnerability to transmission of intergenerational trauma, whereas in others, these same events act to promote intergenerational resilience. What differentiates one individual or community from another is not entirely clear, although as indicated earlier, at least some factors have been identified that are relevant to resilience among First Nations individuals (Chandler & Lalonde,

1998). Analyses of vulnerability factors (e.g., previous trauma, poor appraisals and coping) together with the contextual factors that promote resilience might provide a starting point for identifying the questions that need to be asked, and what alternative courses of action might have the most healing effect.

In view of the profound influence of trauma experiences that persist across generations, it should come as no surprise that treatment of trauma-based pathology, particularly given the influence of “postmemory” and collective memory, will require considerable time, and the undoing of the effects of discrete events (such as the Residential School experience) may require several generations. There have been laudable groups and programs initiated by First Nations that have made some inroads in this regard (e.g., Healing of the Seven Generations, n.d.), as well as other healing initiatives supported by the Aboriginal Healing Foundation (n.d.) using funding obtained from the federal government’s “Gathering Strength” Aboriginal Action Plan in 1998 and the Indian Residential School Settlement Agreement in 2007. Of course, it is presently premature to assess the potential long-term benefits stemming from these initiatives, and unfortunately funding availability for them (and others) is limited, making it difficult to determine the effectiveness of these programs. Nevertheless, it seems that these programs have, at least, provided safe environments for healing and to reflect on the past, and have helped many Survivors to acquire improved ways of coping and relating with themselves and others (Aboriginal Healing Foundation, 2003)

Recommendations

- There is a lack of statistics regarding trauma-related disorders for First Nations peoples in Canada. For example, to our knowledge, statistics documenting rates of PTSD among First Nations peoples do not exist. Furthermore, where data are available, there are problems regarding the coverage and quality of the data (Smylie & Anderson, 2006). The absence of accurate data is problematic as it is unclear to what extent health disparities exist between Aboriginal and non-Aboriginal Canadians for specific disorders, which has obvious important implications for planning and delivery of health services.
- Despite increased attention to the role that intergenerational trauma plays in the lives of First Nations peoples, few studies have empirically


assessed this issue. Although it is likely that many of the mechanisms which promote the intergenerational cycle are the same as those reviewed in the current paper among non-Aboriginal samples, cultural differences may render some of these findings imprecise among Aboriginal groups. Considering the significant role that trauma plays in the lives of Aboriginal peoples, it is important to identify mechanisms, specific to First Nations peoples, by which the cycle of trauma and stress repeats itself across generations in order to intervene and preclude the intergenerational cycle of trauma.

- The lack of appropriate measurement instruments that focus on PTSD, depression, substance abuse, as well as assessments of wellness among First Nations is problematic, as cultural differences may impact the appropriateness of such measures. Furthermore, because there is such heterogeneity with regards to levels of ethnic identity within this group, levels of identification with First Nations peoples and cultures should also be considered in research among First Nations peoples.
- More research is needed to explore how the consequences of traumatic events that are shared by a social collective (e.g., war, social disorder, chronic discrimination, and forced assimilation through Residential Schools) may differ from interpersonal traumas among First Nations peoples. For example, collective traumas may encourage greater reliance on coping strategies involving social support and shared belief systems (religion or spirituality) that could potentially encourage resilience to stress-related outcomes. In this regard, when social support was combined with emotional expression, a group’s ability to articulate their experiences was augmented, and they were more likely to derive a shared understanding of the collectively-experienced trauma (Zarowsky, 2004). Further, holding a shared belief system (which entails a communal perspective), which might include religious, social or political beliefs, might facilitate the individual’s abilities to confront their traumas and derive meaning from them (Calhoun, Cann, Tedeschi, & McMillan, 2000; Summerfield, 1999), as well as to contend effectively with subsequently encountered stressors (Halcon et al., 2004).




- Beals, J., Novins, D.K., Whitesell, N.R., Spicer, P., Mitchell, C.M., Manson, S.M., *et al.* (2005b). Prevalence of mental disorders and utilization of mental health services in two American Indian reservation populations: Mental health disparities in a national context. *American Journal of Psychiatry*, 162, 1723-1732.
- Beals, J., Spicer, P., Mitchell, C.M., Novins, D.K., Manson, S.M., & the AI-SUPERPFP TEAM. (2003b). Racial disparities in alcohol use: Comparison of 2 American Indian reservation populations with national data. *American Journal of Public Health*, 93, 1683-1685.
- Beck, A.T. & Beck, R.W., 1972. Screening depressed patients in family practice: A rapid technique. *Postgraduate Medicine*, 52, 81-85.
- Beck, A., Steer, R., & Brown, G. (1996). *The Beck Depression Inventory – Second Edition Manual*. San Antonio, TX: The Psychological Corporation.
- Beck, A.T., Ward, C.H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry* 4, 561-571.
- Bernstein, D.P., Stein, J.A., Newcomb, M.D., Walker, E., Pogge, D., Ahluvalia, T., Stokes, J., Handelsman, L., Medrano, M., Desmond, D., & Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse and Neglect*, 27(2), 169-90.
- Berry, J.W. (1990). Acculturation and adaptation: A general framework. In W.H. Holtzemann & T.H. Bornemann (Eds.), *Mental health of immigrants and refugees* (pp. 91-102). Austin: University of Texas.
- Berz, J.B., Taft, C.T., Watkins, L.E., & Monson, C.M. (2008). Associations between PTSD symptoms and parenting satisfaction in a female veteran sample. *Journal of Psychological Trauma*, 7, 37-45.
- Blackstock, C., Trocmé, N., & Bennett, M. (2004). Child maltreatment investigations among Aboriginal and non-Aboriginal families in Canada: A comparative analysis. *Violence Against Women*, 10, 901-916.
- Blake, D.D., Weathers, F.W., Nagy, L.M., Kaloupek, D.G., Klauminzer, G., Charney, C.S., & Keane, T.M. (1990). A clinician rating scale for assessing current and lifetime PTSD: The CAPS. *Behavior Therapist*, 13, 187-188.
- Blake, D.D., Weathers, F.W., Nagy, L.M., Kaloupek, D.G., Gusman, F.D., Charney, D.S., & Keane, T.M. (1995). The development of a clinician-administered PTSD scale. *Journal of Traumatic Stress*, 8, 75-90.
- Boddy, J. & Smith, M. (1999). A normative study of children's injuries. *Society for Reproductive and Infant Psychology Newsletter*, 4, 1-2.
- Bohn, D.K. (1998). Clinical Interventions with Native American battered women. In J.C. Campbell (Ed.), *Empowering survivors of abuse: Health care for battered women and their children* (pp. 241-258). Thousand Oaks: Sage.
- Bolton, P. (2001). Cross-cultural validity and reliability testing of a standard psychiatric assessment instrument without a gold standard. *Journal of Nervous and Mental Disease*, 189, 238-242.
- Bombay, A., Matheson, K., & Anisman, H. (2007). Reported levels of communication regarding personal and parental Indian Residential School experiences. Unpublished raw data.
- Bombay, A., Matheson, K., & Anisman, H. (2008a). *Resilience and vulnerability to depressive symptoms associated with perceived discrimination among First Nations people in Canada. Poster presented at the annual meeting of the Society for Personality and Social Psychology, Albuquerque, New Mexico.*
- Bombay, A., Matheson, K., & Anisman, H. (2008b). *The Impact of Stressors on Second Generation Indian Residential School Survivors. Poster presented at the annual meeting of the National Network for Aboriginal Mental Health Research, Montreal, Quebec.*
- Bonanno, G.A. & Mancini, A.D. (2008). The human capacity to thrive in the face of potential trauma. *Pediatrics*, 121, 369-375.
- Bondy, B. (2007). Common genetic factors for depression and cardiovascular disease. *Dialogues in Clinical Neuroscience*, 9, 19-28.
- Bowen, A. & Muhajarine, N. (2006). Prevalence of antenatal depression in women enrolled in an outreach program in Canada. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 35, 491-498.
- Bower, M. & Knutson, J.F. (1996). Attitudes toward physical discipline as a function of disciplinary history and self-labeling as physically abused. *Child Abuse & Neglect*, 20, 689-699.



-  National Aboriginal Health Organization (NAHO)
Organisation nationale de la santé autochtone (ONSA)
bə.Cŋ mə.bʰəy.Lɛ.m̩ d̥ˈtəd̪ɑ́.fə.sən.sɔ̌ʃ bʷə.pn̪l̪

Journal of Aboriginal Health, November 2009 33

- 34 Journal de la santé autochtone, novembre 2009 National Aboriginal Health Organization (NAHO)

-  National Aboriginal Health Organization (NAHO)
Organisation nationale de la santé autochtone (ONSA)
ᑲᓕᐱᑦ ᓄᓇᑲᓂᑦ ᓴᓴᓂᑦ ᐃᓪᓂᐳᓴᓴᓂᑦ ᓂᓴᓴᓂᑦ

Journal of Aboriginal Health, November 2009 35

- 36 Journal de la santé autochtone, novembre 2009
- National Aboriginal Health Organization (NAHO)
Organisation nationale de la santé autochtone (ONSA)
ᑲᓐᑕᑦ ᓄᓇᑲᓪᑲᓪᑯᑦ ᐱᓂᓃᓪᑯᑦ ᐱᓂᓃᓪᑯᑦ ᐱᓂᓃᓪᑯᑦ ᐱᓂᓃᓪᑯᑦ


-
- 

National Aboriginal Health Organization (NAHO)
 Organisation nationale de la santé autochtone (ONSA)
 ᓇᑕᑦᑭ ᓄᓐᖃᖅᔪᓴᒫᓂᓯ ᑏᓯᑦᑕᓐᖁᓯᓂᓕᓂᓵᑦ ᓇᑲᓯᓶᖅᑎᓯᓐᖁ

Journal of Aboriginal Health, November 2009

37


- 38 Journal de la santé autochtone, novembre 2009
- National Aboriginal Health Organization (NAHO)
Organisation nationale de la santé autochtone (ONSA)
ᓇᓕᑦᑦ ᓄᓇᓃᓂᓂᓐ ᓴᓯᓯᓂᓐ ᓴᓐᓂᓱᓐ ᓇᓴᓐᓂᓐᓴᓐ ᓅᓐᓴᓂᓐᓴᓐ

-  National Aboriginal Health Organization (NAHO)
Organisation nationale de la santé autochtone (ONSA)
bə.CI ˌm̩.ʔɛ.b̩.ʔy.Lɛ.m̩ ˈd̩.s̩.d̩.ʔ.f̩.s̩.c̩.n̩.s̩.J̩ b̩.ʔɛ.ŋl̩

Journal of Aboriginal Health, November 2009 39

- Journal de la santé autochtone, novembre 2009
- National Aboriginal Health Organization (NAHO)
Organisation nationale de la santé autochtone (ONSA)

- Journal de la santé autochtone, novembre 2009
- National Aboriginal Health Organization (NAHO)
Organisation nationale de la santé autochtone (ONSA)

-
- 

National Aboriginal Health Organization (NAHO)
 Organisation nationale de la santé autochtone (ONSA)
 ᓇᑕᐱᐅ ᓄᓇᔭᑖᑦᔨᔪᔭᓂᑦ ᐸᓂᑦᐸᑦᔨᔪᔭᓂᑦᐱᐅ ᔭᑖᑦᔨᔪᔭᓂᑦ

Journal of Aboriginal Health, November 2009

43

- Rutter, M. (2006). Implications of resilience concepts for scientific understanding. *Annals of the New York Academy of Sciences*, 1094, 1-12.
- Safford, S.M., Alloy, L.B., Abramson, L.Y., & Crossfield, A.G. (2007). Negative cognitive style as a predictor of negative life events in depression-prone individuals: A test of the stress generation hypothesis. *Journal of Affective Disorders*, 99, 147-154.
- Sagi, A., Van IJzendoorn, M.H., Joels, T., & Scharf, M. (2002). Disorganized reasoning in Holocaust survivors: An attachment perspective. *American Journal of Orthopsychiatry*, 72, 194-203.
- Sahmoun, A.E., Markland, M.J., & Helgersson, S.D. (2007). Mental health status and diabetes among Whites and Native Americans: Is race an effect modifier? *Journal of Health Care for the Poor and Underserved*, 18, 599-608.
- Samper, R.E., Taft, C.T., King, D.W., & King, L.A. (2004). Posttraumatic stress disorder symptoms and parenting satisfaction among a national sample of male Vietnam veterans. *Journal of traumatic stress*, 17, 311-315.
- Sapolsky, R.M., Romero, L.M., & Munck, A.U. (2000). How do glucocorticoids influence stress responses? Integrating permissive, suppressive, stimulatory, and preparative actions. *Endocrine Reviews*, 21, 55-89.
- Schnurr, P.P. & Green, B.L. (2004). *Trauma and health: Physical health consequences of exposure to extreme stress*. Washington, DC: American Psychological Association.
- Schonfeld, W.H., Verboncoeur, C.J., Fifer, S.K., Lipschutz, R.C., Lubeck, D.P., & Buesching, D.P. (1997). The functioning and well-being of patients with unrecognized anxiety disorders and major depressive disorder. *Journal of Affective Disorders*, 43, 105-109.
- Schrimshaw, E.W. (2003). Relationship-specific unsupportive social interactions and depressive symptoms among women living with HIV/AIDS: Direct and moderating effects. *Journal of Behavioral Medicine*, 26, 297-313.
- Schuck, A.M. & Widom, C.S. (2001). Childhood victimization and alcohol symptoms in females: Causal inferences and hypothesized mediators. *Child Abuse & Neglect*, 25, 1069-1092.
- Seiffge-Krenke, I. (2000). Causal links between stressful events, coping style, and adolescent symptomatology. *Journal of Adolescence*, 23, 675-691.
- Seiffge-Krenke, I. & Beyers, W. (2005). Coping trajectories from adolescence to young adulthood: Links to attachment state of mind. *Journal of Research on Adolescence*, 15, 561-582.
- Selzer, M.L. (1971). The Michigan alcoholism screening test: The quest for a new diagnostic instrument. *American Journal of Psychiatry*, 127(12), 1653-1658.
- Serido, J., Almeida, D.M., & Wethington, E. (2004). Chronic stressors and daily hassles: Unique and interactive relationships with psychological distress. *Journal of Health and Social Behavior*, 45, 17-33.
- Shanks, N., Windle, R.J., Perks, P.A., Harbuz, M.S., Jessop, D.S., Ingram, C.D., et al. (2000). Early-life exposure to endotoxin alters hypothalamic-pituitary-adrenal function and predisposition to inflammation. *Proceedings of the National Academy of Sciences*, 97, 5645-5650.
- Shelton, K.H. & Harold, G.T. (2007). Marital conflict and children's adjustment: The mediating and moderating role of children's coping strategies. *Social Development*, 16, 497-512.
- Shrout, P., Skodol, A., & Dohrenwend, B.P. (1986). A two stage approach for case identification and diagnosis: First stage instruments. In J. Barrett & R. Rose (eds.), *Mental disorder in the community* (pp. 286-303). New York, NY: Guilford.
- Simons, A.D., Angell, K.L., Monroe, S.M., & Thase, M.E. (1993). Cognition and life stress in depression: Cognitive factors and the definition, rating, and generation of negative life events. *Journal of Abnormal Psychology*, 102, 584-591.
- Skinner, H.A. (1982). The drug abuse screening test. *Addictive Behaviors*, 7, 363-371.
- Slavin, L.A., Rainer, K.L., McCreary, M.L., & Gowda, K.K. (1991). Toward a multicultural model of the stress process. *Journal of Counseling and Development*, 70, 156-153.
- Smedley, B.D., Stith, A.Y., & Nelson, A.R. (2003). *Unequal treatment: Confronting racial and ethnic disparities in health care*. Washington, DC: National Academies Press.
- Smith, A. (2003). Soul wound: The legacy of Native American schools. *Amnesty Now*, 14-17.



- Smith, N.G. & Ingram, K.M. (2004). Workplace heterosexism and adjustment among lesbian, gay, and bisexual individuals: The role of unsupportive social interactions. *Journal of Counseling Psychology, 51*, 57-67.
- Smith, S.M., Stinson, F.S., Dawson, D.A., Goldstein, R., Huang, B., & Grant, B.F. (2006). Race/ethnic differences in the prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Psychological Medicine, 36*, 987-998.
- Smylie, J. & Anderson, M. (2006). Understanding the health of Indigenous peoples in Canada: key methodological and conceptual challenges. *Canadian medical Association Journal, 175*(6), 602-605.
- Somasundaram, D. (2007). Collective trauma in northern Sri Lanka: a qualitative psychosocial-ecological study. *International Journal of Mental Health Systems, 1*, 5.
- Spaccarelli, S. (1994). Stress, appraisal, and coping in child sexual abuse: A theoretical and empirical review. *Psychological Bulletin, 116*, 340-362.
- Spaccarelli, S. & Fuchs, C. (1997). Variability in symptom expression among sexually abused girls: Developing multivariate models. *Journal of Clinical Child Psychology, 26*, 24-35.
- Spicer, P., Beals, J., Croy, C.D., Mitchell, C.M., Novins, D.K., Moore, L., et al. (2003). The prevalence of DSM-III-R alcohol dependence in two American Indian populations. *Alcoholism: Clinical and Experimental Research, 27*, 1785-1797.
- Stamm, B.H. & Friedman, M.J. (2000). Cultural diversity in the appraisal and expression of traumatic exposure. In A. Shalev, R. Yehuda, & A. McFarlane (Eds.), *International handbook of human response to trauma* (pp 69-85). New York: Plenum Press.
- Stamm, B.H. & Stamm, H.E. (1999). Trauma and loss in Native North America: An ethnocultural perspective. In K. Nader, N. Dubrow, & B.H. Stamm (Eds.), *Honoring differences: Cultural issues in the treatment of trauma and loss* (pp. 49-75). New York: Brunner-Routledge.
- Stanton, A.L., Danoff-Burg, S., Cameron, C.L., & Ellis, A.P. (1994). Coping through emotional approach: Problems of conceptualization and confounding. *Journal of Personality and Social Psychology, 66*, 350-362.
- Stark, K.D., Schmidt, K.L., & Joiner, T.E. (1996). Cognitive triad: Relationship to depressive symptoms, parents' cognitive triad, and perceived parental messages. *Journal of Abnormal Child Psychology, 24*, 615-631.
- Statistics Canada. (2008a). *Aboriginal Peoples in Canada in 2006: Inuit, Métis and First Nations, 2006 Census*. Ottawa, ON: Statistics Canada.
- Statistics Canada. (2008b). *Family Violence in Canada: A Statistical Profile*. Ottawa, ON: Statistics Canada.
- Stevenson, W. (1999). Colonialism and First Nations women in Canada. In E. Dua & A. Robertson (Eds.), *Scratching the surface-Canadian anti-racist feminist thought* (pp. 40-80). Toronto, ON: Women's Press.
- Storr, C., Ialongo, N.S., Anthony, J.C., & Breslau, N. (2007). Childhood antecedents of exposure to traumatic events and posttraumatic stress disorder. *American Journal of Psychiatry, 164*, 119-125.
- Sue, D. W., & Sue, D. (1999). *Counseling the culturally different: Theory and practice* (3rd ed.). Toronto, ON: Wiley.
- Suls, J., & Fletcher, B. (1985). The relative efficacy of avoidant and non-avoidant coping strategies: A meta-analysis. *Health Psychology, 4*, 249-288.
- Summerfield, D. (1999). A critique of seven assumptions behind psychological trauma programmes in war-affected areas. *Social Science and Medicine, 48*, 1449-1462.
- Tehee, M. & Esqueda, C.W. (2008). American Indian and European American women's perceptions of domestic violence. *Journal of Family Violence, 23*, 25-35.
- Tennen, H., Affleck, G., Armeli, S., & Carney, M.A. (2000). A daily process approach to coping: Linking theory, research, and practice. *American Psychologist, 55*, 626-636.
- Thabet, A.A.M., Tischler, V., & Vostanis, P. (2004). Maltreatment and coping strategies among male adolescents living in the Gaza Strip. *Child Abuse & Neglect, 28*, 77-91.
- The Healing of the Seven Generations. (n.d.). [Program web site]. Retrieved March 18, 2009, from the Healing of the Seven Generations Web site: <http://healingofthe7generations.org/>



- 46 Journal de la santé autochtone, novembre 2009
- National Aboriginal Health Organization (NAHO)
Organisation nationale de la santé autochtone (ONSA)
ᑲᓐᑕᑦ ᓄᓇᑲᓪᑲᓪᑯᑦ ᐱᓂᓃᑦ ᐱᓂᓃᑦ ᐱᓂᓃᑦ ᐱᓂᓃᑦ ᐱᓂᓃᑦ

- ## END NOTES

1. Although this review pertains to the experiences of First Nations peoples, there is paucity of research conducted among First Nations groups with regard to many important issues relevant to the current paper. Although we acknowledge that there are many important differences between First Nations groups and other Aboriginal populations, when First Nations data is not available, research conducted in other Aboriginal groups are presented.
2. Highlighting these particular events should not be misconstrued as reflecting the only adverse experiences of First Nations peoples in the 20th century.