

events may engender PTSD symptoms. For instance, PTSD reactions may occur among individuals who have experienced stressors (e.g., bereavement or divorce) that did not meet the criteria for a traumatic event (Rosen & Lilienfeld, 2008). Furthermore, although the appraisal of whether the individual experienced fear, helplessness, or horror is necessary for a diagnosis of PTSD (Breslau & Kessler, 2001; Creamer, McFarlane & Burgess, 2005), other emotions such as anger and shame are also associated with the development of this pathology (Brewin, Andrews & Rose, 2000).

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).

Not surprisingly, both childhood physical and sexual abuse, and a history of multiple traumatic experiences were significant predictors of PTSD among American Indians (Libby et al., 2005; Robin et al., 1997). However, in the study reporting a prevalence rate of 21 per cent, approximately one in four individuals who had reported at least one traumatic event was diagnosed with lifetime PTSD, a ratio similar to that found in non-Aboriginal studies (Breslau, Davis, Andreski, & Peterson, 1991). Thus, the high prevalence of PTSD may be due to greater trauma exposure among American Indians, rather than an increased vulnerability to PTSD.

Illness Comorbidity

Psychological and physical illnesses frequently do not occur in isolation of one another, and comorbid conditions are common (i.e., two or more illnesses occur simultaneously or consecutively). In this regard, depressive illness has

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).

It has been suggested that some of these comorbidities might reflect the illnesses having similar underlying processes or etiologies (Anisman et al., 2008). For instance, cortisol (a hormone released from the adrenal gland in response to stressors), is elevated in many cases of depression. If this elevation is sustained, the hormone may instigate neuronal damage within particular brain regions, such as the hippocampus (McEwen, 1994; Sapolsky, Romero & Munck, 2000), which may inhibit new cell growth that occurs in some brain regions (i.e., neurogenesis) (Montaron et al., 2006), thereby contributing to illness comorbidity.

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 comorbid 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 & Helgeson, 2007).

Factors influencing the stress response and health outcomes

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



function may change as a stressor experience evolves. By example, in initially dealing with an abusive encounter, an individual may seek social support simply to vent or have a shoulder to cry on. However, over time, the individual may come to understand that it is more effective to seek social support and combine this with other strategies in order to express their concerns, reduce ambiguity concerning the situation, and establish potential resources to take action. Social support for First Nations individuals can come from multiple sources, including various government organizations; however, it is highly likely that the most effective support would be derived from other First Nations individuals and organizations.

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).

Contribution of early experiences and genetic factors in stressor-provoked pathology

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.

Beyond the influence of early life events, the high concordance rates between monozygotic twins have

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.

Studies in rodents have led to interesting findings concerning the impact of early life stressors with respect to the expression of genetic influences. As already indicated, having a gene for a particular phenotype does not necessarily ensure that this gene's potential actions will be expressed, as the effects of a gene may be manifested provided that environmental stressors are encountered (e.g., neglect by the mom). In this regard, environmental factors may curtail the gene's expression (through a process referred to as epigenetic actions), thereby influencing later reactivity to stressful events (Weaver et al., 2004). Furthermore, prenatal environment (reflected by maternal under-nutrition and birth weight of pups) was associated with increased risk of metabolic disorders and cardiovascular illness in the offspring, and that epigenetic factors might have been responsible for such outcomes (Meaney, Szyf & Seckl, 2007). It is particularly notable that intergenerational effects of maternally-provoked stress behaviours were also apparent (Champagne & Meaney, 2001), although it is uncertain whether these effects stemmed from epigenetic factors. These findings raise the possibility that maternal influences (or other early life events), through changes of genomic expression, may have lasting repercussions on stress responses. These findings suggest that improvements in early life experiences, including the development of pre- and postnatal programs related to child rearing, may have long-term positive ramifications.

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



previous and ongoing stressors. Of course, there is ample evidence that those with hardy personalities are better prepared to deal with stressors (Kobasa, 1982), and there are interesting data indicating that the resilience of individuals are markedly influenced by community based and contextual factors (Chandler & Lalonde, 1998; Ungar, 2004). For instance, Chandler and Lalonde (1998) indicated that the incidence of suicide in various Aboriginal communities was related to the frequency of particular resilience (or cultural continuity) factors being present (namely self-governance, involvement in land claims negotiations, and the presence of cultural facilities and health, education, and police/fire services). Moreover, to this list one can add that early positive life experiences augment resilience (Champagne et al., 2008). Yet, there is the distinct possibility that to a certain extent encountering hardships may promote a degree of tolerance (resilience) in dealing with stressors. The importance of the views expressed by both Ungar (2004), and Chandler and Lalonde (1998) is that resilience is portrayed as the confluence of several input factors, and that the effectiveness of these resilience-promoting factors may be optimal in one situation, but limited in another.

Culture and the stress process

Cultural factors likely influence the stress process and may have profound effects on how individuals cope with shared trauma. It has been suggested that standard stress models do not consider culturally based responses in the stress process, despite the fact that ethnic/cultural variables may influence how individuals appraise an event, the coping strategies available to them, and how the stress response is expressed (Slavin, Rainer, McCreary, & Gowda, 1991).

Ethnic groups vary in terms of their histories, cultural norms and relationship to the mainstream culture, which in turn leads to variations in the nature, exposure, assessment, and reactions to stressful and traumatic events (Duran & Duran, 1995; Ramirez, 1998; Sue & Sue, 1999; Weaver, 1998). Although components of the stress response are evident across groups, the symptoms of psychopathology as outlined by the DSM-IV-TR may not adequately represent responses unique to specific ethnic or cultural groups (Stamm & Friedman, 2000). For example, the core symptoms of depression may be similar across many cultures, but prominent differences may occur with respect to certain types of symptoms (e.g., affective, cognitive and somatic symptoms) (e.g., Chun, Enomoto & Sue, 1996).

Within racial/ethnic groups, differences might exist regarding the degree to which individuals identify with their minority culture. Such within group differences in identity and acculturation, in turn, might influence interpretations and reactions to stressful events, as well as the stress-health

relationship (Noh, Beiser, Kaspar, Hou, & Rummens, 1999). It seems that the salience of cultural interpretations of events influence the stress response, and that this outcome varies with the degree to which an individual identifies with the culture. In assessing the impact of stressors, appraisal and coping strategies among First Nations people, it might be considered that cultural factors play a prominent role in the evolution of psychological disturbances, as well as the intergenerational transfer of stressor effects.

Historical and Contemporary Trauma Endured by First Nations Peoples

In assessing the intergenerational effects of adverse events on well-being, it needs to be considered that the impact of trauma experiences of one generation are difficult to dissociate from the effects of adverse events encountered in subsequent generations. Specifically, poor well-being may reflect the direct actions of current events, the direct or indirect effects attributable to traumatic experiences in previous generations, or the synergy between the two. This said, it might be propitious to examine the effects of stressors of various types within a historical context. This not only includes cataclysmic events, but also day-to-day hassles experienced, the lack of control individuals had over their own lives, the unpredictability of events, as well as numerous other psychosocial factors that influenced the way First Nations individuals might have appraised their situation and subsequently coped with ongoing stressors. This review is not meant to document the multiple historical abuses experienced by First Nations peoples, but we do emphasize that stressful events encountered at any given time ought to be contextualized in terms of the long-standing traumas encountered by this group. This is especially important given the possible intergenerational effects associated with trauma experiences.

First contact between the Aboriginal peoples and Europeans occurred in the 16th century. During this time, much of the interaction between these groups was founded on the fur trade and missionary activities that focused on saving the heathen souls of the "savages" by attempts at religious conversion (Fisher, 1992). These conversion efforts undermined existing beliefs and practices that were fundamental to their previously effective economic, familial and communal institutions. This early period of contact was also marked by community massacres and warfare, as well as epidemics stemming from the introduction of new diseases.

The signing of the Royal Proclamation in 1763 laid the basis for the treaty-making process, resulting in the creation of Indian reserve lands and the establishment of a variety of promises in exchange for land rights (e.g., hunting and



that might carry on into adulthood (e.g., Garber & Flynn, 2001; Gibb, 2002; Gibb et al., 2001; Parker, Gladstone, Mitchell, Wilhelm, & Roy, 2000). It has been proposed that chronic or repeated adversities in childhood may lead to an inferential process in which the child attempts to understand why such abusive experiences are happening to them (Gibb, 2002; Rose & Abramson, 1992). Over time, children may internalize the belief that these adverse events are stable, have negative consequences and are attributable to aspects of themselves.

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).

For children who are abused, attributions that the child makes with regard to the cause of their abuse may contribute to negative health and social outcomes. The severity of physical abuse children experienced was associated with abuse-specific symptoms that were either internalized (e.g., depression or anxiety) or externalized (e.g., aggression). Although the mediating role of attributional style was not assessed, it appeared that beyond the variance accounted for by the severity of the abuse, both abuse-specific attributions and general attributional style were predictive of the level of psychopathology experienced by children (Brown & Kolko, 1999). Several investigators have, in fact, indicated that the development of negative cognitive styles mediated the relationship between various forms of childhood abuse and neglect and poor adult outcomes, including depression, PTSD and interpersonal difficulties (Alloy et al., 2001; Browne & Winkelman, 2007; Cukor & McGinn, 2006; Gibb et al., 2001; Hankin, 2005). Although few studies explored the role of cognitive factors in Aboriginals, it was found that perceptions of higher levels of control, shorter durations of stressful experiences and greater predictability regarding the stressful situations were associated with decreased depressive symptoms in Navajo youth (Rieckmann, Wadsworth & Deyhle, 2004).

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

impact of a given stressor). However, in the context of intergenerational effects, impaired coping may influence parental behaviours so that coping styles of the next generation are affected, rendering individuals less well equipped to deal with stressors that they encounter. It is thought that at about the age of 15, coping styles take on a more mature (or at least adult-like) form, as individuals tend to use more active, and a broader range of coping methods (Seiffge-Krenke, 2000). Although the selection of coping strategies may vary across situations, as will be described in ensuing sections, the development of characteristic ways of coping during adolescence may place individuals on more or less adaptive trajectories and may set the stage for the coping styles these children use into and throughout adulthood (Seiffge-Krenke & Beyers, 2005).

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 (Kliwer, Fearnaw & 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



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



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.



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).



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