

ANXIETY DISORDERS AND
ABORIGINAL PEOPLES IN CANADA:
*The Current State of Knowledge and Directions
for Future Research*

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DE LA SANTÉ AUTOCHTONE

EMERGING PRIORITIES

© 2015 National Collaborating Centre for Aboriginal Health (NCCAH). This publication was funded by the NCCAH and made possible through a financial contribution from the Public Health Agency of Canada. The views expressed herein do not necessarily represent the views of the Public Health Agency of Canada.

Acknowledgements

The NCCAH uses an external blind review process for documents that are research based, involve literature reviews or knowledge synthesis, or undertake an assessment of knowledge gaps. We would like to acknowledge our reviewers for their generous contributions of time and expertise to this manuscript.

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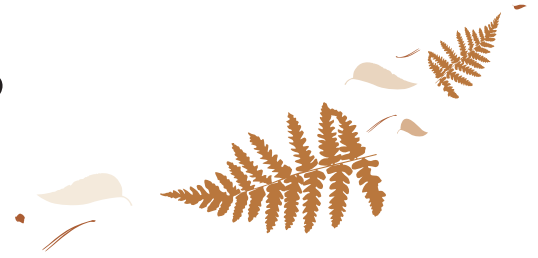
Une version française est également publiée sur le site www.ccnsa-nccah.ca, sous le titre *Les troubles anxieux et les Peuples autochtones au Canada : L'état actuel des connaissances et les pistes de recherches futures*.

Citation: Bellamy, S. and Hardy, C. (2015). *Anxiety Disorders and Aboriginal Peoples in Canada: The Current State of Knowledge and Directions for Future Research*. Prince George, BC: National Collaborating Centre for Aboriginal Health.

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INTRODUCTION



The experience of fear and anxiety are a normal part of life; however for some people, fear and anxiety can become problematic and interfere with daily activities and substantially decrease quality of life and well-being (Anxiety BC, 2007-2014). Anxiety disorders are characterized by excessive fear and anxiety that is related to behavioural disturbances (i.e. attempts to avoid objects or situations that arouse anxiety) (American Psychiatric Association [APA], 2013). While *fear* is an emotional and autonomic nervous system (fight or flight) response to a threat that may be real or perceived; *anxiety* is the anticipation of a threat that may happen in the future (APA, 2013). The distinction between normal anxiety and problematic anxiety is determined by the severity and duration of anxiety in relation to the situation (Adermann & Campbell, 2010).

The development of an anxiety disorder can occur across the lifespan in both males and females (Anxiety Association Disorders of Canada, 2003). In children, fear and anxiety that is problematic differs from developmentally normal anxieties and persist beyond appropriate developmental periods (APA, 2013). For example, it is normal for a child to feel insecure when they are first separated from caregivers, such as with the beginning of school attendance. However, usually after the age of five the child begins to feel more comfortable. If the child's anxiety around separation from caregivers persists and interferes with life activities (i.e. refuses to be out of sight of the parent and avoids school or activities

with friends), then the child may have separation anxiety (Anxiety BC, 2007-2014). Similarly, in adults anxiety may be a problem if it interferes with normal functioning and activities. For example, adults with an anxiety disorder may experience chronic worry and stress, which may also manifest as physical symptoms such as irritability, fatigue, insomnia and tension (Ballenger et al., 2001). However, the assessment of whether an individual's experience of anxiety is excessive and out of proportion with the situation should be determined by a clinician who is able to account for contextual and cultural factors (APA, 2013).

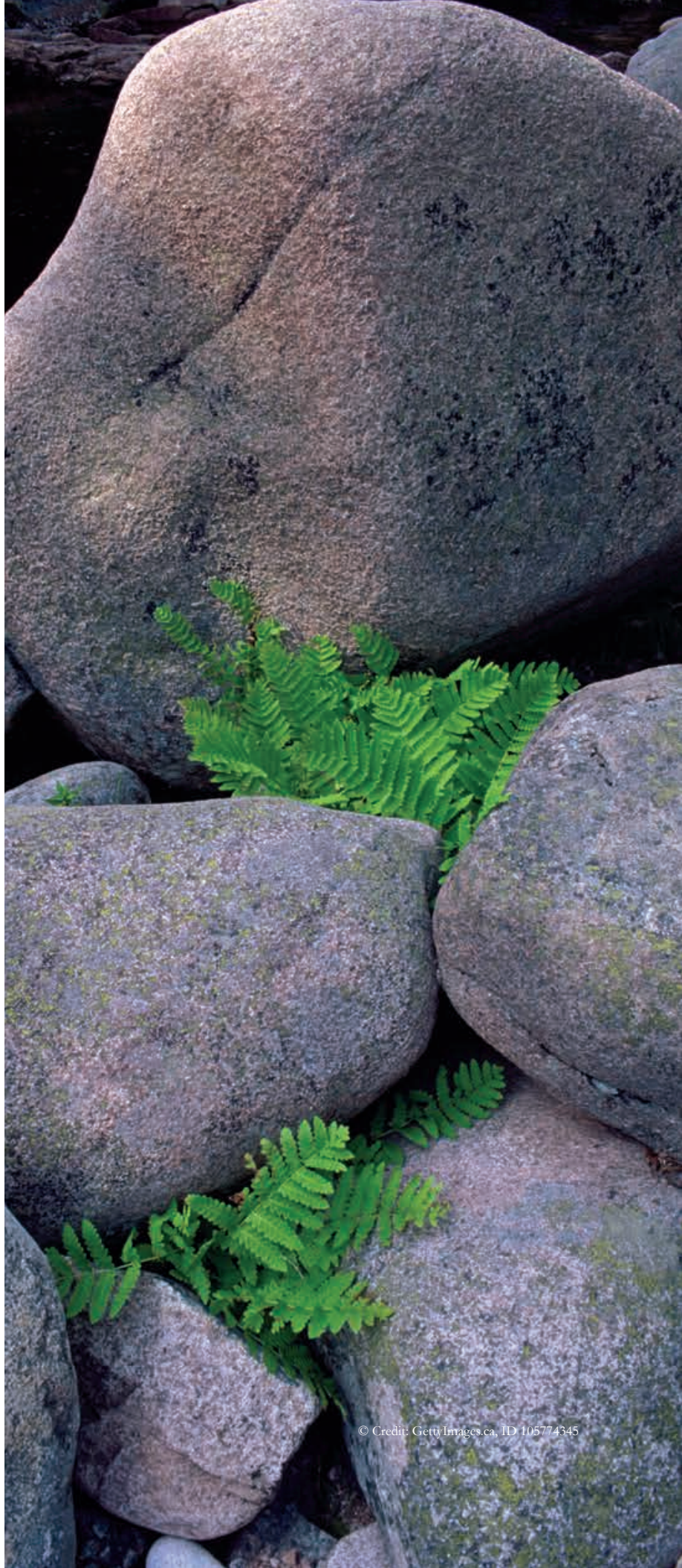
This paper is a review and discussion of the relevant literature focused on anxiety and Aboriginal peoples in Canada. Data derived from Aboriginal peoples in Canada is extremely limited; therefore, this paper draws on knowledge gained from studies conducted with both mainstream and Aboriginal populations. Aboriginal scholars have highlighted that there are significant limitations when using research articles that have been published in the context of the Western system of knowledge to access the breadth and depth of Indigenous knowledge (Battiste, 2002). Indigenous knowledge, in general, is not passed down to subsequent generations through the written word as it is in Western traditions. Instead, it is often symbolic, oral, and expressed through Indigenous language and modeling (Battiste, 2002). This paper begins with a summary of the prevalence of anxiety in both Western and Aboriginal

populations, followed by a discussion of Indigenous and Western models and ways of knowing within the context of mental health. This is followed by a discussion of risk factors for anxiety. Much of the knowledge concerning risk factors for anxiety have been drawn from studies that have been guided by the theoretical lens of the Western model of mental health and conducted with non-Aboriginal populations. As anxiety disorders often begin in childhood, the paper focuses on evidence for childhood risk factors that are known in the general population and then links these risk factors to children in Aboriginal populations. The paper then examines associations between anxiety and adult outcomes such as alcohol use and depression with studies conducted in both mainstream and Aboriginal populations. Physical health issues that have been linked to anxiety are also discussed within the context of Aboriginal populations. The paper then examines issues and concerns regarding assessment of anxiety in Aboriginal populations followed by a discussion of the need to identify resilience factors in Aboriginal communities and culture. The paper concludes with a discussion of intervention, prevention and treatment programs for Aboriginal populations.

A literature search was conducted by the first author from April 2013 to September 2014 to establish the extent of knowledge on anxiety and Aboriginal peoples in Canada. The databases PsycINFO, PubMed and PsycARTICLES were searched using the key words and combinations Anxiety and Prevalence; Anxiety and Aboriginal; Anxiety and Risk; Anxiety and Childhood; Anxiety and Gender; Anxiety and Treatment; Anxiety and Health; Culture and Anxiety; Anxiety and Alcohol; Anxiety and Depression; Aboriginal and CBT. Articles and books that were recommended by peer reviewers and staff of the National Collaborating Centre for Aboriginal Health (NCCA) were also

reviewed, as well as government and organizational research documents and reports that were relevant to the topic. Given the lack of research in the area of anxiety and Aboriginal peoples in Canada, the first author followed up the initial search with a snowball technique in which references in key articles were hand searched in order to find as much relevant literature as possible in a sparsely researched topic. Preference was given to the most current research and for studies that included Aboriginal populations. All searches were limited to articles published in English.

Within this paper, the term 'Aboriginal peoples' refers to all of the original peoples of Canada and their descendants. Three separate groups of Aboriginal peoples are recognized by the Canadian Constitution, First Nations, Inuit, and Métis (Aboriginal Affairs and Northern Development Canada [AANDC], 2013). Within these defined groups there is significant diversity as each community represents distinct histories, traditional knowledge, culture, and language. As a result, the term 'Aboriginal' in this paper does not refer to a homogeneous group of peoples, but rather respects the diversity and differences between and within the many Aboriginal communities in Canada. Research that is specific to First Nations, Inuit and Métis will be reported when available; however, given the lack of data on Aboriginal peoples, the authors draw not only on the available data from Aboriginal population but also include data from the general population, as well as research that has been conducted with Indigenous populations in other countries. Since there are multiple ways to refer to Indigenous populations in the literature, including Aboriginal, Indigenous, American Indian, and North American Indian, among others, and these terms are sometimes used interchangeably, the authors of this paper utilize the same terms as used in the literature cited.







ANXIETY DISORDERS AMONG ABORIGINAL POPULATIONS



Anxiety and stress disorders are one of the most prevalent mental illnesses among Canadian adults, children, and youth (Anxiety Disorders Association of Canada, 2003; Mood Disorder Society of Canada, 2009). In Canada, one in four Canadians aged 15 years or older at some point in their lifetime will experience an anxiety disorder (Anxiety Association Disorders of Canada, 2003). In 2012, 2.6% of Canadians who were aged 15 years or older reported symptoms of generalized anxiety disorder (Statistics Canada, 2013). Women have consistently been found to have higher prevalence rates for anxiety disorders and are twice as likely to experience an anxiety disorder compared to men (Canadian Mental Health Association, [CMHA] 2013). Anxiety disorders tend to show up in young people, with phobias and Obsessive Compulsive Disorder often occurring in childhood, and social anxiety and panic disorders often developing in adolescents (CMHA, 2013). In British Columbia, approximately 6.5% of youth have an anxiety disorder (CMHA, 2013). In addition, the gender difference in vulnerability to anxiety emerges in childhood, with one study indicating that by the age of 6 years, girls are already twice as likely to develop an anxiety disorder compared to boys (Lewinsohn et al., 1998).

While there has been some research investigating anxiety disorders among Aboriginal peoples in Canada, to date it does not present a clear picture of anxiety rates among Aboriginal populations. The limited number of studies that have been conducted have yielded mixed results; some have found higher anxiety rates among Aboriginal peoples compared with the general population, while others have found lower or very similar rates. For example, a provincial level analysis of

...the mix of Western and Indigenous knowledge and the acceptance of Indigenous ways of knowing will allow for decolonization and ultimately lead to a healing process for Indigenous peoples (Duran, 2006).



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diagnosis and treatment of anxiety disorders in Manitoba's universal health care system showed that Métis have a higher prevalence of anxiety (9.3%) compared to all other Manitobans (8.0%) (Sanguins et al., 2013). However, analysis conducted at a regional level indicated that in some regions, Métis had lower levels of anxiety while in other regions they had similar or higher levels of anxiety in comparison to the general population (For more detailed information on specific regional areas, please see Sanguins et al., 2013).

In Nunavut, a study conducted in 2007 and 2008 with 1710 Inuit from 25 communities indicated 14% of respondents felt anxious all or most of the time. While the survey does not diagnose an anxiety disorder or provide a comparison to the non-Inuit surrounding population, the results provide a picture of the percentage of Inuit experiencing high levels of anxiety (Galloway & Saudny, 2012). Finally, a study conducted in Bella Coola Valley, British Columbia found lower rates of depression and anxiety were diagnosed

among First Nations adults aged 18 years and older compared to the non-aboriginal population of the same age group in the same area (Thommasen, Baggaley, Thommasen, & Zhang, 2005). However, the results of the Bella Coola study should be interpreted with caution as the sample included only cases diagnosed by the local primary physician and therefore excludes individuals who may be experiencing high levels of anxiety but did not choose not to seek help from the local physician.

In some cases, studies available for the assessment of the mental health of Aboriginal peoples in Canada do not provide the information needed to determine prevalence of any specific mental disorder. Some surveys tend to ask very general questions concerning emotional distress, which is open to interpretation for both the survey participant and the researcher. For example, data from the First Nations and Inuit Regional Health Survey indicated that 17% of children were reported to have "more emotional

or behavioural problems compared to other boys/girls" (MacMillan et al., 2009, p. 163). While these data indicate Aboriginal children in some communities may be experiencing higher levels of emotional distress compared to the general population, the data collected does not provide information on what specific types of problems these children may be struggling with. In addition, the First Nations Regional Health Survey measured emotional distress among Canada's First Nations with a scale that combined both anxiety and depression symptoms. While the survey indicated significantly more First Nations were feeling moderate (44.5%) to high (6.2%) levels of psychological distress compared to the general population, which had a combined moderate and high distress prevalence of 33.5%,¹ (First Nations Information Governance Centre [FNIGC], 2012), these numbers do not allow for prevalence estimates of either depression or anxiety specifically in Aboriginal communities.

¹ The general population survey combined moderate and high distress into one percentage.

Indigenous and Western models of mental health and wellness

It is well established that Indigenous and Western models of mental health have important differences. In particular, Indigenous models of health take a holistic approach and view mental health to be related to the individual's spiritual, cognitive, physical, and emotional health (e.g. Blackstock, 2008). Indigenous healing models also consider the mental health of the individual to be linked to their relationships with others and connection to the land (Blackstock, 2008). In contrast, Western psychology is largely oriented toward understanding the person as an isolated and autonomous individual. Additionally, the Western model of mental health examines the individual within the context of their behavioural, biological (neuroscience) and mental processes. The *Diagnostic and Statistical Manual of Mental Disorders 5th edition* (APA, 2013) defines a mental disorder as a "... clinically significant disturbance in an individual's cognition, emotion regulation, or behaviour that reflects a dysfunction in the psychological biological or developmental processes underlying mental functioning" (p.20).

Indigenous researchers and counsellors have noted the omission of the spiritual dimension in the discipline of psychology is particularly relevant to Indigenous healing practices and theories (e.g. Duran, 2006; Gone, 2003; Linklater, 2014). As Duran (2006) points out, the root word of psychology (psyche) is Greek in origin and literally translates into soul or spirit. By extension, the word psychopathology translates to "soul suffering" and psychotherapist translates to "soul healer" (2006). The concept of soul wounding is discussed in Duran (2006) as a consequence of historical trauma that has been inflicted on Indigenous peoples during the colonization of

North America. An investigation into a Native American community in California revealed the elders concerns about their community were not articulated in terms of symptoms of mental disorders or addiction, but were understood to be the consequences of ancestral hurt and spiritual injury (Duran, 2006).

The consequences of historical trauma are beginning to be understood with growing evidence of continued effects of trauma in subsequent generations of World War II Holocaust survivors (e.g. Kellermann, 2001; Lev-Wiesel, 2007). Specifically, studies have shown children of Holocaust survivors tend to develop some of the psychological symptoms of trauma that are experienced by their parents even though the children were not exposed to the trauma of the war or Holocaust (Kellerman, 2001). Further evidence for the transmission of trauma across generations has also been found in studies investigating parent-child attachment relationships. Specifically, unresolved trauma in the parent has been linked to increased vulnerability to trauma-related disorders such as Post-Traumatic Stress Disorder (PTSD), anxiety and depression in the child (e.g. Lyons-Ruth, Bronfman, & Atwood, 1999; Schore, 2002). Western theories regarding the intergenerational transmission of trauma have identified mechanisms such as the development of the infant brain in relation to the emotions and behaviour of the traumatized parent (Feldman, 2007; Schore, 2002). These theories understand the transmission of trauma through shared biology of the parent and child as the nervous system of the fearful and/or sad parent shapes the developing infant's nervous system into one that is similar to the parent's. Aboriginal scholars and researchers have drawn on evidence from Holocaust and attachment studies to understand the impact of historical trauma associated with colonization to explain mental health challenges and addiction

found in some Aboriginal communities today (e.g. Duran, 2006; Haskell & Randall, 2009).

However, the use of Western empirical methods to validate Indigenous knowledge as a practice has been critiqued as a strategy of continuing colonization (e.g. Duran, 2006). Duran argues that the discipline of psychology must move beyond colonization into a place where Indigenous knowledge is accepted as valid simply because it is. Duran states it is possible for Western and Indigenous ways of knowing to exist side by side without a hierarchy in which Western knowledge is perceived as superior. Duran also maintains that it is through the ability to understand that it is possible to see the world in more than one way that benefits may be drawn from each system of knowledge. Duran further argues that the mix of Western and Indigenous knowledge and the acceptance of Indigenous ways of knowing will allow for decolonization and ultimately lead to a healing process for Indigenous peoples (Duran, 2006).





The health and well-being of Aboriginal children must be considered within the understanding that they have been born into the legacy of colonialism and are influenced by unique political and social conditions (Greenwood, 2005).

Children and anxiety disorders

Anxiety disorders are amongst the most prevalent mental disorders found in children (Colletti et al., 2009). High prevalence rates of anxiety in children is a concern as early onset anxiety disorders have been shown to have long-term implications; there is evidence that children often do not “outgrow” anxiety, with many anxious adults having a history of anxiety in childhood (Kendall & Ollendick, 2004). Children experiencing high levels of anxiety are more likely to have difficulties learning in school, more troubles relating with peers, and impairments in social competence (Adermann & Campbell, 2007a). In adolescence and young adulthood, ongoing anxiety and/or stress disorders may have a range of secondary adverse effects such as teen childbearing, lower socioeconomic status, marital instability, and impairments in functioning (Kessler & Greenberg, 2002). Additionally, children

who are anxious have an increased risk to develop depression over time, which may sometimes lead to suicide or suicide ideation in adolescence and adulthood (Kendall & Ollendick, 2004). The relationship between anxiety and depression is a strong one as anxiety has been shown to precede depression, and symptoms of both disorders may be experienced at the same time (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003).

Risk factors for anxiety disorders in children and youth

Many risk factors have been identified that increase an individual's risk to develop an anxiety disorder, including temperament or personality characteristics, heritability of anxiety and mood disorders, and child maltreatment, such as emotional, physical or sexual abuse (i.e. Craske & Waters, 2005; Repetti, Taylor, & Seeman, 2002; Young, Abelson, Curtis, & Nesse, 1997). Parental anxiety has been shown to be a significant risk factor for the development of anxiety in children. Children with anxious parents have a two-fold greater risk to develop an anxiety disorder themselves compared to children whose parents do not have an anxiety disorder (Merikangas, Dierker, & Szatmari, 1998). It is unclear whether the link between parental and child anxiety is due to inherited genetic risk or to shared environment; however, increased risk is likely a result of a combination of both genetics and environment (Phal, Barrett, & Gullo, 2012).

Temperament, specifically 'negative affectivity', which is described as a tendency to experience negative emotion across a variety of situations even without an obvious stressor, is associated with increased risk for excessive anxiety (Craske & Waters, 2005). In children, heightened levels of negative affectivity are linked with behavioural inhibition (Pérez-Edgar & Fox, 2005). Behavioural inhibition

is associated with chronically high levels of nervous system arousal and is characterized by shyness and social withdrawal, as well as by marked fearful behaviour with unfamiliar people and situations (Craske & Waters, 2005; Manassis, Hudson, Webb, & Albano, 2004). While it is well established in the literature that behavioural inhibition in children is associated with a variety of anxiety disorders (Phal et al., 2012), it is important to be clear that behavioural inhibition should be viewed as a marker of anxiety rather than a causal factor in the development of an anxiety disorder.

Finally, early childhood adversity (e.g. poverty, neglect, or any type of abuse) has been associated with a wide variety of physical and mental illness in children (Repetti et al., 2002). An investigation into specific adversities leading to anxiety disorders found prenatal marital dissatisfaction, mothers changing partners during childhood, and parental deviance (trouble with police) were factors which increased the risk for anxiety in adolescents and young adults (Phillips, Hammen, Brennan, Najman, & Bor, 2005; Spence, Najman, Bor, O'Callaghan, & Williams, 2002). Parental stress associated with a variety of factors, such as death of a loved one, low socioeconomic status, low levels of social support, conflict between parents and daily hassles, have been associated with increased risk for child anxiety (Phal et al., 2012).

Aboriginal children: Lasting effects of colonization and risk for anxiety disorders

While children and youth in the general population seem to be particularly vulnerable to develop anxiety, as indicated by high prevalence rates, little is known about prevalence rates for anxiety disorders in Aboriginal children and youth (Aderman & Campbell, 2007a). Nevertheless, there is no evidence to suggest Aboriginal children and youth would suffer less anxiety given that many are exposed

to additional stressors compared to the general population (Adermann & Campbell, 2007b).

The health and well-being of Aboriginal children must be considered within the understanding that they have been born into the legacy of colonialism and are influenced by unique political and social conditions (Greenwood, 2005). The history of colonization and continued oppression of Aboriginal peoples in Canada are considered by many to be the root causes of the elevated levels of social distress in many Aboriginal communities (Kirmayer, Tait, & Simpson, 2009). Aboriginal parents today are impacted by the traumatic history of their own parents and ancestors. Several lines of research have indicated that the experience of trauma over generations may be transmitted in the same way that culture and knowledge are passed down from one generation to another (Bombay, Matheson, & Anisman, 2009). Children of parents exposed to major trauma often demonstrate higher reactivity to stress, indicating a continuation of heightened levels of anxiety and emotional distress from one generation to the next even though the children were not exposed to the original trauma (Bombay et al., 2009).

For a variety of reasons, many Aboriginal parents experience high levels of stress that may place their children at increased risk for anxiety. For example, the standards of living in many Aboriginal communities today are considered to be well below the level that is enjoyed by the majority of Canadians, with high levels of substandard housing and poverty experienced in many Aboriginal communities (Salée, 2006). In addition, rates of family violence, youth suicide, poorer individual physical health, and psychological distress have been found to be higher in many Aboriginal communities in comparison to the general population (Salée, 2006).

With the breakup of many families, the likelihood of maternal partner changes in Aboriginal communities may be higher as approximately one third of Aboriginal families are headed by single mothers (AANDC, 2012). Further, the likelihood of a parent coming into contact with the justice system is also higher for Aboriginal children as historically and presently, Aboriginal peoples in Canada are highly overrepresented in the justice system (Perreault, 2009). Incarceration rates for Aboriginal peoples are presently 10 times higher than for non-Aboriginal people (Office of the Correctional Investigator, 2013). The lingering effects of colonization and residential schools, including socio-economic disparities (income, employment, and educational) and family histories of substance abuse, suicide, and violence have been linked to the over-representation of Aboriginal peoples in the justice system (Office of the Correctional Investigator, 2013). Taken together, the conditions in many Aboriginal communities increase levels of parental stress, which may increase risk and vulnerability to the development of anxiety disorders in Aboriginal children.

Prevention programs developed for children

Given the consequences of anxiety in children and youth, such as poor school performance, vulnerability to develop depression and increased risk for alcohol abuse, prevention strategies for Aboriginal children and youth may prevent significant personal and social cost associated with anxiety disorders. They may be targeted towards individuals showing a vulnerability or predisposition to a particular disorder or towards a larger group of people who are at risk to develop a disorder (Adermann & Campbell, 2007b). Group-based cognitive behavioural programs have been created that are developmentally appropriate for anxious children. For example, the 'Coping Cat' program is a Cognitive Behavioural

Therapy (CBT) program designed to help children recognize signs of anxiety and to learn and practice skills to help them cope with challenges that come up in their lives (Kendall, Furr, & Podell, 2003).

The feasibility of adapting cognitive-behavioural interventions for use in Indigenous populations has been investigated with promising results. For example, researchers in Australia have proposed adapting the mainstream cognitive behavioural intervention 'Cool Kids' to meet the needs of Australia's Aboriginal children (Davies, 2011). Cool Kids is an educational program that uses stories to teach children about feelings of anxiety and help them retrain their attention and change their cognitions to reduce anxiety. This program has demonstrated effectiveness in helping children learn how to better cope with anxiety and fear (Davies, 2011). Cool Kids may be well received by Indigenous populations because of the program's use of narratives and storytelling as pedagogical techniques, and because the program is flexible, allowing for the modification of content and delivery (with the help of community elders and parents) to ensure the program is culturally appropriate for each community (Davies, 2011). While cognitive behavioural programs such as Cool Kids so far do not appear to have been utilized for Aboriginal children in Canada, if cultural considerations are incorporated into the program as indicated by Davies (2011), the Cool Kids or similar programs may have real potential to effectively help Aboriginal children learn how to cope with anxiety.

Additionally, the role of mentors has been viewed as an opportunity to create resilience among at-risk children and youth in both western and Aboriginal cultures (Klinck et al., 2005) While there is no single definition for mentoring and each organization outlines their own concept of mentoring, the general focus behind

mentoring programs is to provide children and youth with a caring adult who is able to give support, friendship, advice, reinforcement, and constructive role modeling (Klinck, et al., 2005; Vandenberghe, 2013). In Western society, mentoring programs have been linked to a wide range of positive outcomes such as improvement in social and emotional well-being, improved motivation, as well as greater academic achievement (Scrine & Reibel, 2012).

While the use of the term 'mentoring' is not typical in Aboriginal cultures, the concept of mentoring has a long history among Aboriginal peoples and has developed around shared values and customary tribal practices as traditionally, the whole community contributed to raising and teaching children (Klinck et al., 2005). In pre-colonial Aboriginal communities, children learned through watching, listening and observing role models in their community (CAT Research and Professional Services, 2006). Given the natural fit between Aboriginal cultures and mentoring, researchers have called for more utilization of this important resource for Aboriginal children and youth who may be at risk. However, the development of mentoring programs for Aboriginal children and youth requires special attention to their cultural and community needs as programs developed for First Nations youth living on a reservation in British Columbia may not be suitable for Métis living in an urban setting (Klinck, et al., 2005). As a result, mentoring programs must be appropriate to the specific cultural and societal needs of the community and of the mentees.

Studies investigating outcomes of mentoring programs that have been implemented in mainstream society have found these programs are effective in helping children and youth achieve greater success in education through improvement of attitudes toward school, greater self-confidence, and increased



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attendance to classes (Vandenbergh, 2013). However, researchers have called for a greater emphasis to be placed on the mental health needs of at-risk children participating in mentoring programs as research has indicated mentoring may provide some protective benefits for mental health (Herrera, DuBois, & Grossman, 2013). For example, an investigation of 1,300 youth who participated in seven different mentoring programs indicated that mentoring improved symptoms of depression in high-risk youth (Herrera et al., 2013). The potential for mentoring to reduce depression symptoms is encouraging as the study indicated almost one in four youth reported high depression levels at baseline. While the study did not measure anxiety, it is well established in the literature that anxiety often co-occurs with depression in children, youth and adults (Colletti et al., 2009; Seligman & Ollendick, 1998). There is evidence to support the

argument for an increased focus on mental health in mentoring programs. A randomized controlled trial conducted in Colorado, US implemented a 30-week intervention designed to improve mental health functioning in children who were placed in foster care as a result of maltreatment (Taussig & Culhane, 2010). The intervention incorporated a mental health skills group component into the program for children placed in foster care due to maltreatment. The mental health skills group was designed to improve mental health functioning through teaching a range of skills designed to improve emotional and social functioning, such as emotion regulation, anger management, problem solving, and perspective taking (Taussig & Culhane, 2010). The outcomes of the intervention were encouraging as six months after the program was completed, a significant reduction in mental health symptoms associated with depression, trauma and anxiety was

found in the treatment group (Taussig & Culhane, 2010). While the study was conducted with the general population, it is likely that a culturally appropriate mentoring program, which incorporates skills designed to increase mental health and resilience, would be beneficial for Aboriginal children and youth in Canada.





Anxiety risk in urban Aboriginal populations

The movement of Aboriginal peoples from reservation lands to urban centers is an important area of study as the proportion of Aboriginal peoples residing in urban centers has been steadily increasing over the past six decades (Browne, McDonald, & Elliot, 2009). The 1951 Census of Canada indicated that 6.7% of Aboriginal people in Canada lived in urban centers; however, the percentage of Aboriginal people living in cities had risen to 49% by 2001 (Wotherspoon, 2003) and to 54% by 2006 (Place, 2012). In 2006, of the 54% of Aboriginal people who relocated to urban centers, 50% were First Nations, 43% were Métis and 17% were Inuit (Place, 2012). However, it is important to note the difficulties in defining and measuring

the urban Aboriginal population, as the data available to researchers does not adequately reflect the population (Browne et al., 2009). For example, data cannot be separated into neat categories of urban vs on-reserve First Nations populations as many First Nations people move frequently back and forth between urban and rural areas (Browne et al., 2009). Additionally, many population level surveys designed to investigate Aboriginal health across Canada do not differentiate between urban, rural and reserve settings (Browne et al., 2009). As a result, the reader should interpret findings from Aboriginal surveys with these limitations in mind.

There are many motivations for Aboriginal peoples to relocate from reservations to urban centers. Reasons for relocation range from the pursuit of better education opportunities, to

access to medical services, to desire to escape domestic violence, or to perceptions that city living is more stimulating (Place, 2012). As a result, it is important to understand that the Aboriginal population relocating into urban centers is very diverse and does not represent a homogeneous group. They differ widely across a range of socio-economic indicators, including education, employment, income, and family structure. Nevertheless, there is considerable evidence that there is a wide socio-economic gap between urban Aboriginal people, with some living in extremely disadvantaged conditions and others living in more favourable conditions (Browne et al., 2009). As a result, the risk factors identified for some urban Aboriginal people do not apply to all Aboriginal people living in urban areas.

Despite the limitations of the data, it is clear that many Aboriginal people who relocate into urban centers face unique challenges that have been associated with higher risk for mental health disorders, including anxiety. Increased levels of risk may result from accumulated effects of challenges such as high levels of poverty and difficulty finding adequate housing. For example, a study of First Nations peoples living in Hamilton, Ontario showed that 73.7% of the sample was living in overcrowded housing, 63% reported they had to give up purchasing important things (such as food) in order to pay for housing, and 13% of the sample reported they were currently homeless or in transition in finding a home (Urban Aboriginal

Health Database Research Project, 2011). Further, Aboriginal peoples who move to urban centers are especially vulnerable if they face financial challenges as they are simultaneously cut off from their protective social networks left behind on the reservation (Wotherspoon, 2003). The loss of social networks places many Aboriginal peoples at high risk for homelessness, as they have nowhere to turn to if they lose their job or are faced with the breakdown of a relationship (Wotherspoon, 2003).

Additionally, Aboriginal children whose families have relocated to urban centers may experience uncertain or stressful living conditions and may be exposed to

factors that are known to increase risk for anxiety in children. For example, childhood poverty and parental stress, as well as other aversive factors including homelessness and parental separation and divorce, are known to increase risk for anxiety in children (Merikangas et al., 1998; Repetti et al., 2002; Phillips et al., 2005). Increased awareness and research is needed in order to develop programs that will support Aboriginal families who relocate into urban centers as they face unique challenges that may place their children at higher risk for mental health challenges.

Despite the limitations of the data, it is clear that many Aboriginal people who relocate into urban centers face unique challenges that have been associated with higher risk for mental health disorders, including anxiety.



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HISTORY

COLONIZATION

SUBSTANCE ABUSE

COMMUNITY

TRAUMA

Anxiety and depression comorbidity

Comorbidity refers to the co-occurrence of two or more disorders in the same individual which may occur at the same time or at different times during the life course (Seligman & Ollendick, 1988). Results of numerous studies have shown high rates of co-occurrence of depression and anxiety in children, adolescents and adults (Colletti et al., 2009). However, evidence suggests anxiety often precedes the development of depression (Seligman & Ollendick, 1988). Age of onset for anxiety disorders typically occurs most often in childhood, while the onset of depression occurs most often in adolescence and young adulthood (Wittchen, Kessler, Pfister, & Lieb, 2000). A study that followed a large sample of adolescents and young adults in the general population over a four to

five year period found that depending on the type of anxiety disorder, risk for subsequent depression increased from two- to four-fold over the course of the study (Wittchen et al., 2000).

While there is limited information on the prevalence of depression and anxiety in Aboriginal populations in Canada, Duran, an Indigenous clinical psychologist whose work has focused on historical trauma and Indigenous peoples in California for more than 20 years, observed that many of his clients suffer from depression and anxiety (Duran, 2006). Duran emphasizes that depression and anxiety must be understood in the context of the client's family and tribal history. Given similarities in the colonization processes that have occurred in the United States and Canada, the high number of depression and anxiety cases found in Duran's community may indicate

that some Aboriginal communities in Canada may be experiencing high rates of anxiety and depression comorbidity as well. It is important to conduct research in Aboriginal communities in Canada in order to obtain clarity concerning the needs of each community.

Anxiety and alcohol use

In the general population, anxiety disorders have often been found to co-occur with alcohol and/or drug use. Investigations into pathways to comorbidity of anxiety and substance abuse indicate the presence of a substance use disorder can lead to the development of anxiety; however, in the majority of cases the anxiety disorder occurs before the development of a substance use problem (Smith & Book, 2008). For example, a study found both girls and boys who had higher levels of



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anxiety symptoms during childhood also had an increased risk of consuming alcohol during adolescence (Kaplow, Curran, Angold, & Costello, 2001). It is thought that the development and maintenance of substance use disorders may be the result of a self-medicating strategy wherein substances are used to relieve anxiety symptoms (Smith, & Book, 2008).

Indigenous populations around the world that have experienced colonization and loss of their own culture have shown vulnerabilities to a variety of health disparities including problematic alcohol use (Kirmayer, Brass & Tait, 2000). Problematic alcohol use among Aboriginal people in Canada has been understood as an outcome of past trauma from residential school attendance and intergenerational trauma (Chansonneuve, 2007), as well as loss of culture and connection to the land

(Kirmayer et al., 2000). There is also evidence that alcohol use is associated with anxiety among Aboriginal youth in Canada. A recent study investigating associations between personality traits, drinking motives and alcohol use among several different Aboriginal groups across Canada found that Aboriginal youth were often motivated to drink alcohol as a coping mechanism and a desire to enhance positive mood rather than for social reasons (Mushquash, Stewart, Mushquash, Comeau, & McGrath, 2014). In addition, Aboriginal youth who experienced anxiety sensitivity were more likely to drink to reduce tension in social situations (Mushquash et al., 2014). Anxiety sensitivity may be understood as a fear of anxiety-related symptoms or bodily sensations (Zvolensky, McNeil, Porter, & Stewart, 2001). This fear is based on the belief that anxiety sensations may have negative physical, psychological or

social consequences and are predictive of unexpected panic attacks (Zvolensky et al., 2001). This line of research suggests Aboriginal youth who are sensitive to, or fearful of, the bodily feelings related to anxiety may drink in order to relieve physical tension (Mushquash et al., 2014).

Determining possible underlying motivations for alcohol use among Aboriginal youth in Canada is important as it aids in the development of prevention programs. The established connection between anxiety and alcohol use allows program developers to target anxiety reduction as a potential mechanism to prevent problematic alcohol use. The prevention of problematic alcohol use among youth is a worthy goal as studies have shown that youth who abuse alcohol are more likely to develop problematic alcohol use in adulthood (Mushquash et al., 2014).



Identification of resilience factors in Aboriginal populations

While many Aboriginal people face additional stressors compared to the general population, research suggests there may be a high degree of resiliency among Aboriginal peoples (Bowen et al., 2014). An investigation into mood and anxiety problems in Indigenous women in Australia, New Zealand, the United States and Canada found that despite increased exposure to various risk factors, the majority of Indigenous women do not develop mood problems (Bowen et al., 2014). Further, in Canada, the First Nations Regional Health Survey reported that the majority of First Nations individuals reported feeling balanced most or all of the time. Specifically, 73.0% reported feeling balanced physically, 73.1% reported feeling balanced emotionally, 75.0% reported feeling balanced mentally, and 71.1% reported feeling balanced spiritually (FNIGC, 2012). These

results are encouraging as they help to highlight the strength and resilience of Aboriginal peoples despite high levels of historical trauma in addition to present day adversity such as poverty, racism, addiction and family violence that some Aboriginal peoples are experiencing.

Additionally, research conducted with the general population has found high quality social support helps to protect against the effects of stress and can enhance resiliency to trauma-related mental health symptoms (Ozbay et al., 2007). The link between social support and health has also been found in studies conducted in Aboriginal populations. For example, an analysis of the Aboriginal Peoples Survey (APS) which consists of data from First Nations, Inuit and Métis across Canada found strong social support was linked to thriving health (Richmond, Ross, & Egeland, 2007). Further, social support has also been found to have significant effects on mental health. A study investigating the relationship between social networks, social

support and psychosocial functioning in a group of 159 American Indian women undergoing a residential school substance abuse treatment program found that clients who indicated they had higher levels of perceived social support also had lower levels of anxiety, depression and hostility (Chong & Lopez, 2005). However, it is also important to recognize that social networks may negatively impact health if the demands of these networks increase stress in the individual or lead to exposure to negative influences such as substance abuse or violence (Richmond et al., 2005). Further research is needed to investigate factors that increase resilience in Aboriginal populations. Experts have argued that it would be helpful for researchers to explore factors that positively influence health in Aboriginal peoples rather than mainly focus on marginalization or loss (Browne et al., 2009). With greater knowledge of resilience factors, more resources can be channelled into understanding and supporting how Aboriginal peoples develop a sense of

community and cultural identity, as these are significant determinants of health in Aboriginal peoples (Browne et al., 2009).

Overall, there is a need to identify resilience factors in Aboriginal communities in order to develop a complete picture of the risk and protective factors impacting Aboriginal health in Canada. With clarification of both risk and resilience factors, culturally appropriate interventions and prevention programs may be developed. The incorporation of mentoring programs that are culturally appropriate may contribute to resilience against anxiety as well as other mental health disorders in Aboriginal children and youth. In addition, programs that foster community connections and encourage positive social support networks may also contribute to greater resilience to mental as well as physical health.

Assessment, diagnosis and treatment for Aboriginal Peoples

In order to determine if Aboriginal peoples in Canada are experiencing increased rates of anxiety disorders, culturally appropriate assessment tools are needed. While anxiety disorders are known to occur across cultures, different conceptions of mental health and wellness may also result in different symptom experience, as well as different meanings attached to those symptoms (Adermann & Campbell, 2010). Mental health assessment is influenced by social and cultural factors, and a full appreciation of the complexity and diversity of Aboriginal peoples is necessary when assessing anxiety in Aboriginal peoples as they are likely to have different beliefs, opinions and experiences around

anxiety (Drew, Adams, & Walker, 2010). Subsequently, inaccurate assessment may arise from the use of culturally biased questionnaires that are designed to measure anxiety symptoms in Western cultures (Adermann & Campbell, 2007b). Additionally, poor communication between the client and assessor may also occur if they hold different worldviews (Adermann & Campbell, 2007b). The need for culturally appropriate tools for mental health assessment has been recognized, and tools for mental health assessment with particular Aboriginal groups have been developed (Drew, Adams, & Walker, 2010). However, as Aboriginal communities are diverse in culture, language and tradition, caution is needed to ensure assessments are culturally valid and appropriate for any particular group or individual that is being assessed.

...research conducted with the general population has found high quality social support helps to protect against the effects of stress and can enhance resiliency to trauma-related mental health symptoms (Ozbay et al., 2007).



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...many counsellors who advocate for the provision of culturally appropriate therapies for Aboriginal clients also state that it is important to provide choice to Aboriginal clients concerning what type of therapy or approach is best for them (e.g. Linklater, 2014).

Additionally, the use of Western models for diagnosis and treatment of mental health disorders for Aboriginal clients has elicited a variety of responses from therapists working with Aboriginal clients. Some Aboriginal practitioners have found that Western healing approaches have helped Aboriginal clients (e.g. Gone, 2010), while others argue Western approaches are often ineffective (e.g. Blackstock, 2008) or cause more harm to the client (Duran, 2006). Since reaction to trauma in Aboriginal communities has been diagnosed by professionals working within a Western framework of health and illness, critics have argued that contact with mental health professionals are simply another form of colonization for Aboriginal peoples (Linklater, 2014). Experts have argued Western mental health service delivery may be viewed as a form of colonization simply because it requires the client to embrace traditions such as mind-body dualism, individualism, and exclusion of spirituality as factors in mental wellness (e.g. Duran, 2006; Gone, 2003). In this way, mental health services may

undermine the intentions to restore and preserve traditions and culture in many Aboriginal communities (Duran, 2006; Gone, 2003).

Given the limitations of Western healing methods for many Aboriginal peoples, some Indigenous healers argue it is crucial Aboriginal peoples have access to traditional healing methods and theories (e.g. Linklater, 2014, Duran, 2006). According to Duran (2006), one of the first tasks of the Indigenous healer is to work with the client to remove the identity of pathology as part of the healing journey. Duran argues that applying a DSM diagnosis for an Indigenous person is similar to a naming ceremony that literally gives the person an identity of pathology. Other healers working with Indigenous clients argue that diagnoses found in the DSM are not relevant to the Indigenous experience as they are simply too limited to adequately reflect the client's challenges that are rooted in family and community history (Linklater, 2014). According to some Indigenous healers, because DSM diagnoses are

based on symptoms, they are not helpful in understanding a person's history and how they came to be in the situation they are in (Linklater, 2014). However, some have also argued that using a diagnosis is often necessary and useful when working within Western health systems as culturally competent healers working with Indigenous clients are trained in Western medicine or psychology; a diagnosis allows for a starting point in beginning dialogue with a client and serves as a guide for how to move forward with treatment (Linklater, 2014).

Moreover, while some therapists who work with Aboriginal peoples argue that traditional healing approaches that incorporate a holistic model of healing are necessary to be effective for Aboriginal populations (i.e. McCormick, 1996), other therapists have encountered Aboriginal clients (in this case a First Nations healer in Toronto) who do not feel comfortable with traditional healing (Linklater, 2014). It is important to consider that in some Indigenous families, many generations have

practiced Western forms of religion and are not comfortable with Indigenous healing methods (Linklater, 2014). As a result, many counsellors who advocate for the provision of culturally appropriate therapies for Aboriginal clients also state that it is important to provide choice to Aboriginal clients concerning what type of therapy or approach is best for them (e.g. Linklater, 2014).

The mixing of both Western and Indigenous approaches to healing emotional disorders such as depression and anxiety is advocated by Duran (2006) as he states that Aboriginal people are living in a mostly Western world and benefit from a well-rounded healing approach that incorporates knowledge from both traditions. For example, Cognitive Behaviour Therapy (CBT) has been shown to be an effective treatment strategy for anxiety and depression (Otto, Smits, & Reese, 2004) and has been shown to be compatible with the incorporation of Indigenous knowledge (Bennett-Levy et al., 2012). There is consistent evidence to show that CBT is helpful for individuals who prefer not to take, or do not respond to, medication

prescribed for anxiety or who need a 'boost' and receive a combination of CBT and medication (Otto et al., 2004). A recent study demonstrated the effectiveness of CBT with adult Aboriginal people in Australia. In order to avoid cultural barriers between therapists and clients, the study trained five Aboriginal counsellors to deliver CBT to their Aboriginal clients. They were asked to report on its effectiveness and suggest any adaptations which may improve its effectiveness among this population (Bennett-Levy et al., 2012). The counsellors reported they felt incorporating CBT into their practice had improved their clients' well-being. Further, they also indicated they acquired skills and improved their own well-being through CBT. The Aboriginal counsellors reported the structure of CBT created a feeling of safety in the session and promoted feelings of empowerment and self-agency in their clients (Bennett-Levy et al., 2012). However, they also indicated that the structure of CBT should be adapted to suit local social and cultural conditions. Factors such as language, literacy, age, and ethnicity need to be considered in order to increase effectiveness and ensure the

practice is culturally appropriate for specific communities (Bennett-Levy et al., 2012). Researchers have also suggested that incorporating a spiritual component, as well as allowing extra time to build trust and rapport, will increase the effectiveness of CBT in treating anxiety in Aboriginal clients (DeCoteau, Anderson, & Hope, 2006). Relating to the client as a respected equal was suggested to increase receptivity of the therapist and effectively build a trusting relationship (DeCoteau et al., 2006).

Overall the results of studies investigating the usefulness of CBT in Aboriginal populations show promising results. The adaptability of CBT for Aboriginal populations allows for the incorporation of additional components such as spirituality in order to improve cultural relevance for Aboriginal clients. However, suggestions for improvements to CBT must come from the Aboriginal communities themselves in order to ensure the adaptations are appropriate for each community. Further research is needed to determine if CBT may be effective for Aboriginal communities in Canada.

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CONCLUDING REMARKS

Anxiety disorders are the most prevalent mental health disorders found in the general population and may also be prevalent in Aboriginal communities in Canada. Many Aboriginal children and youth are exposed to multiple risk factors for anxiety, such as substandard living conditions, poverty, the presence of depression and/or anxiety in parents, and increased levels of parental stress. Moreover, Aboriginal people in Canada who relocate from reservations into urban centres may be especially vulnerable as they may be cut off from supportive social networks. However, to the authors' knowledge, there are no large-scale population studies that have provided information concerning prevalence rates of anxiety among Aboriginal peoples in Canada. While some researchers argue that there is no evidence to suggest Aboriginal peoples in Canada are less likely to have an anxiety disorder, further research is needed to determine if anxiety is an issue in Aboriginal peoples.

Anxiety is a concern in childhood as it can have implications for the child's well-being across the lifespan. Children often do not outgrow anxiety and in some cases, anxiety may increase risk to develop depression and/or alcohol abuse in adolescents and young adults. Researchers have suggested cognitive behaviour interventions that are culturally appropriate may be affective for preventing and treating anxiety in Aboriginal populations. With growing awareness of the impact of colonization and historical trauma on the mental health of Aboriginal peoples, some therapists are calling for not only culturally appropriate healing practices, but also for a critical look at Western systems of knowledge and incorporation of traditional knowledge into mental health discourse. The blending of Western and Indigenous knowledge without ideas of Western superiority into mental health services may allow for a pathway of healing and decolonization for Aboriginal peoples in Canada.

The blending of Western and Indigenous knowledge without ideas of Western superiority into mental health services may allow for a pathway of healing and decolonization for Aboriginal peoples in Canada.

RESOURCES

National Network For Aboriginal Mental Health Research

This website has a database for mental health promotion, prevention and intervention models and programs for Aboriginal peoples. The database allows users to search for specific types of health services with additional options to narrow the focus such as age, location, ethnicity, type of treatment sought and other relevant issues.

<http://www.namhr.ca/>

Mood Disorders Society of Canada

While this website is not designed specifically for Aboriginal peoples, information on depression and other mood disorders, such as bipolar disorders, may be found here. Contact information for finding mental health services is also provided.

<http://www.mooddisorderscanada.ca>

EYAA-Keen Healing Centre Inc.

EYAA-Keen Healing Centre Inc. provides an indigenous, multidisciplinary, treatment program for Aboriginal adults. Individuals have access to an Aboriginal behavioural health specialist, elder or traditional healer to help them deal with trauma or major loss. Individual support, group work and therapeutic training are provided with a view to facilitating both personal and community healing.

<http://eyaa-keen.org/about/>

Za-geh-do-win Aboriginal Mental Health Services/ Support Directory

This document provides a directory for First Nations mental health services within Ontario.

<http://www.za-geh-do-win.com/PDF/The%20Key.pdf>

My Right Care.ca from the Winnipeg Regional Health Authority

This website is a directory for people in the Winnipeg Region who are looking for healthcare services. The site includes access to mental health services including a crisis response centre and a mobile mental health unit. This website also has a section for Aboriginal Health in which users can find access to Spiritual and Cultural care as well as other relevant information for Aboriginal peoples seeking care in the Winnipeg area.

<http://www.wrha.mb.ca/aboriginalhealth/services/index.php>

Anxiety BC

Anxiety BC is based on a western model of healing. However, the website provided information on anxiety disorders and includes a section on Self Help Strategies that aim to teach skills that an individual can use to help manage their anxiety.

http://www.anxietybc.com/sites/default/files/adult_hmptsd.pdf



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