
Community Resilience: Models, Metaphors and Measures

Laurence J. Kirmayer, MD, FRCPC, Professor and Director, Division of Social and Transcultural Psychiatry, Department of Psychiatry, McGill University and Director, Culture & Mental Health Research Unit, Department of Psychiatry, Jewish General Hospital

Megha Sehdev, Johns Hopkins University

Rob Whitley, PhD, Culture & Mental Health Research Unit, Institute of Community & Family Psychiatry, Jewish General Hospital and Dartmouth Psychiatric Research Center

Stéphane F. Dandeneau, PhD, Culture & Mental Health Research Unit, Institute of Community & Family Psychiatry, Jewish General Hospital

Colette Isaac, Program Coordinator, National Network for Aboriginal Mental Health Research, Culture & Mental Health Research Unit, Jewish General Hospital

ABSTRACT

In this paper, we discuss the importance of community resilience for Aboriginal health and well-being. The concept of resilience has been used in developmental psychology and psychiatry to describe individuals' capacities to achieve well-being and thrive despite significant adversity. Resilience is also a useful concept in ecology where it draws attention to the ability of ecosystems to adapt to environmental stress through transformation. The study of community resilience builds on these concepts, to understand positive responses to adversity at the level of families, communities and larger social systems. Despite historical and ongoing conditions of adversity and hardship many Aboriginal cultures and communities have survived and done well. In this review, we critically assess the various definitions of resilience as applied to individuals. We then examine resilience as applied to families, communities and larger social systems. We examine links between the concept of resilience and social capital. We then consider interventions that can promote resilience and well-being in Aboriginal communities. These include strengthening social capital, networks and support; revitalization of language, enhancing cultural identity and spirituality; supporting families and parents to insure healthy child development; enhancing local control and collective efficacy; building infrastructure (material, human and informational); increasing economic opportunity and diversification; and respecting human diversity. We also discuss methods of measuring community resilience, examining advantages and disadvantages to each method. Community resilience is a concept that resonates with Aboriginal perspectives because it focuses on collective strengths from an ecological or systemic perspective.

KEYWORDS

Community resilience, social capital, system dynamics, mental health promotion



living circumstances both locally and in interaction with the larger society (Allen, 1999). The challenges brought by colonization, residential schools, bureaucratic control, and other social, cultural and political changes may have different impact on communities depending on their pre-existing social structure, resources, strategies of adaptation, and consequent dynamics.

Although connections to the land or to specific places are an important aspect of indigenous identity for many Aboriginal peoples, communities are defined not only in terms of geographic locations but also larger networks that link people as members of First Nations, Inuit or Metis communities that may be geographically dispersed yet strongly connected through a sense of belonging. Many Aboriginal people move back and forth from a rural community to urban settings, while maintaining their sense of community membership. Others Aboriginal individuals are connected to an urban community or to one that is defined by shared historical experiences, cultural values, and political commitments and concerns.

Continuing social, political and technological changes are re-configuring Aboriginal community life. New forms of networking also have allowed new forms of community to emerge that are based on common interests and perspectives, or shared identities, that are facilitated by the Internet and other telecommunications rather than regular face-to-face interaction. This may be particularly important for youth who make active use of new technologies. Such networking also allows communities to form common cause and to find resources and share experiences in ways that may confer new types of resilience.

In this paper, we will use the definition of community provided by Christensen and Robertson (1980) as a starting point, remaining mindful that the term means different things in different contexts and is continuing to undergo transformation.

1.2.3 Community Resilience

The notion of “community resilience” has two interpretations:

1. It may look at how people overcome stress, trauma and other life challenges by drawing from social networks and cultural resources embedded in communities.
2. It may consider the ways in which communities themselves exhibit resilience, responding to stresses and challenges in ways that tend to restore their functioning.

Identifying the ways in which communities foster individual resilience can begin with analysis of the roots of individual resilience. The different factors that contribute to individual resilience can then be mapped onto those structures and processes of the community that promote, enable or enhance these individual-level factors. Resilience of the community itself involves the dynamics of the social response to challenges that threaten to damage or destroy the community. These dynamics may involve adaptations and adjustments of individuals, groups and organizations with the community (seen as components of the community as a system) as well as interactions of the whole community with its surrounding environment, including especially other social, economic and political entities.

1.3 Methodology

This report is based on a selective review of community resilience using online search engines (Google, PubMed and Psylit). We searched for all material addressing “resilience” and either “community,” “collective,” and Aboriginal, First Nations, Inuit, Metis, American Indian, or Alaska Native. From this we selected articles and reports directly addressing our core topic of Aboriginal peoples in Canada. This was supplemented with material on other Indigenous peoples, and specific issues, including: ecosystems, family systems, community response to trauma, measurement of resilience, social capital, and mental health promotion. Although the focus is on community resilience, we reviewed basic issues in individual resilience because of its importance for health and well-being.

2. MODELS AND METAPHORS OF RESILIENCE

Barton (2005) traces the evolution of concepts of individual resilience and shows how it began as a conceptual move away from illness, vulnerability and stigma towards a focus on strengths and assets. Initially, this involved identifying lists of personal traits, skills and resources that were viewed as independent factors that contributed to the individual’s resilience. The literature has moved from a “silo approach” of discrete or independent resilience factors towards an “ecological” view that focuses on the interaction of risk and protective factors. Resilience factors emerge at different levels: individual (psychosocial and biological), family, school, neighbourhood, and the macrolevel of social and economic structures.



harmony and growth of family members” (McCubbin & McCubbin, 2005, p. 31). In contrast, a poorly functioning family environment leads to symptoms of distress, like depression or anxiety, and general inability to cope with trauma or other challenges.

From a family systems perspective, the family is a self-regulating system that interacts with a larger community, social system or ecology. The family must adjust its roles, goals, values, rules, and priorities according to external changes in order to achieve and maintain “balance and harmony.” The ability to “bounce back and transform” requires a range of competencies in the areas of communication, emotion, spirituality, community relationships, and more. Culture and ethnic identity can exert positive influences on family resilience. Culture helps families to make sense of change and is therefore “a source of stability and support, a way of dealing with the problems of daily life” (p. 32). Protective factors like cultural knowledge and practices enable flexibility and coherence, which are key components of both individual and family resilience.

2.6 Ecological or Systemic Resilience

Most psychological theories treat resilience as an individual phenomenon reflecting the constitutional and developmental experiences of the person. Resilience usually has been approached primarily as an individual characteristic even by community psychology researchers (O’Neill, 2005). This approach tends to downplay or ignore higher-level systemic and structural issues that may be the root causes of individual suffering and hold the potential for more effective interventions. This is a crucial issue for understanding resilience in indigenous communities, which continue to struggle with structural violence, systemic racism and other forms of adversity.

An increasing body of recent work within psychology, approaches resilience from an “ecological” perspective, in which individual risk and resilience are understood as being shaped by a dynamic environment. This includes individual’s biological and psychosocial experience, as well as the micro-social environments of family, school and neighbourhood, and the macro-level of social, economic and political processes.

To reflect this dynamic view, new metaphors have been developed to describe resilience borrowed from cybernetics and systems theory. For example, McCubbin and McCubbin (2005) describe the resilient system—whether an individual or family—as a sort of “thermostat” organized through feedback loops to seek and maintain a steady state. The individual or family system interacts with a larger social

ecology, resulting in adjustments in “roles, goals, values, rules, and priorities” according to external challenges in order to achieve “balance and harmony” (McCubbin & McCubbin, 2005, p. 29). The ability to return to a steady state or adapt by transforming the system requires a range of competencies that address communication, emotion, spirituality, and community relationships. Protective factors then are conceptualized in dynamic terms, resulting in adjustments to achieve “stability, harmony and growth” and serving as “a source of stability and support, a way of dealing with the problems of daily life” (McCubbin & McCubbin, 2005, p. 32). The ecological view emphasizes resilience as the ongoing maintenance of balance. The system itself (family or community) is responsible for achieving balance in response to changing contexts.

While ecosystemic approaches to resilience consider environments, they generally focus on how the environment affects individual resilience trajectories (Bogensneider, 1996; Luthar & Cicchetti, 2004; O’Neill, 2005; Waller, 2001). However, larger systems such as communities and societies can also demonstrate resilience (Sonn & Fischer, 1998), and interactions between levels (individual, family, community) contribute to resilience at each level. Rather than seeing individuals in isolation from their cultural, social and communal contexts, an ecological perspective also emphasizes the relationships within and between social systems, such as families, communities, societies, and cultures. Resilience is more than the sum of factors from each component. Each domain contributes new types of interaction with new dynamics. As Waller (2001) puts it, “resilience is a multi-determined and ever-changing product of interacting forces within a given ecosystemic context” (p. 290).

Fleming and Ledogar (2008) discuss how Aboriginal researchers have added a relational, cultural dimension to resilience by focusing on “traditional” activities in people’s lives, such as spirituality, healing practices and language. Healy’s (2006) definition of “cultural resilience” is useful in this regard:

The capacity of a distinct community or cultural system to absorb disturbance and reorganize while undergoing change, so as to retain key elements of its structure and identity that preserve its distinctiveness (p. 10).

In this view, resilience occurs through a dynamic interaction of individual and collective processes that contribute to adaptability, strength, the ability to surmount obstacles, meet challenges, and recover from setbacks.



3. COMMUNITY RESILIENCE

The ecosystemic view of individuals as embedded in a web of complex, interacting relationships has given rise to a new interest in community resilience. This work recognizes that resilience is a “clustered” phenomenon that is not randomly distributed among individuals in a society or community, but occurs in groups of people located in a web of meaningful relationships. The individual, family unit, community, and larger environment are interconnected, and factors from each realm contribute to processes that can counter stress and adversity. This perspective is shifting resilience research towards emphasis on collective processes, strengths and assets (Richardson, 2002).

This community perspective does not negate the importance of individual agency. In fact, research on community resilience advances the view that people can directly and actively harness their surrounding resources to foster healing. A resilient community provides individuals and families with new opportunities and resources to deal with challenges (Sonn & Fisher, 1998). The result may be quite different, and more effective, than what could be achieved by an individual or a single family acting alone.

Some approaches to community resilience emphasize the resources available to the community. Adger (2000) refers to community resilience in terms of the quantity and quality of resources accessible to the community and the extent to which these resources can be modified to meet new challenges. Breton (2001) suggests that community resilience is dependent on the stock of human and social capital within the community. Social capital, in this context, consists of people, networks and voluntary associations that can effectively mobilize individuals to action, as well as community services and infrastructure. In both of these conceptions of resilience a community’s strength is seen as residing in material and social resources. This lends itself to a relatively straightforward method of measuring resilience in terms of taking stock of resources and assessing the ease with which they can be mobilized and adapted to new challenges. However, it seems clear that the nature of available resources and their relevance to the community’s resilience will vary with other social and cultural factors, including the scale and structure of the community, cultural values and priorities, and relationships with the larger society and global systems.

In contrast to this emphasis on human and material resources, Clauss-Ehlers and Lopez-Levy (2002) suggest a conceptualization of community resilience as a process rooted in cultural values and practices. Based on work with Latino and Mexican youth living in the U.S., they consider

community resilience as consisting of three crucial factors: (i) obligations to nuclear and extended family members; (ii) the authority of community Elders; and (iii) the value placed on relationships in and of themselves as opposed to as a means to an end.

A resilient community is able to withstand internal conflict while maintaining the diversity of its individual members, families and groups (Sonn & Fisher, 1998). It also provides the capacity and resources for its members to cope with adversity. The social, cultural and psychological resources offered by Aboriginal communities are “alternative modes” to the mainstream assimilation model. In the indigenous context, what the authors call the “indigenous psyche” provides a counter-model and form of resistance against mainstream representations of Aboriginal people that serves as “identity protection” (Sonn & Fisher, 1998, pp. 458-460).

In work on how communities respond to disasters, community resilience is the capacity of a community or similar group to withstand, recover from, and respond positively to a collective crisis or adversity. On analogy to the different types of individual response to challenges, community resilience can take three broad forms that are not mutually exclusive²:

Resistance – the community may resist change, adjusting and adapting in ways that counter-act the impact of the challenge. A resilient community can withstand considerable disruption before undergoing any lasting change.

Recovery – with severe or prolonged challenges, the community is changed but after the challenges resolve, the community may work its way back to its original situation. A resilient community returns to its pre-disaster state more quickly than a community that is less resilient.

Creativity – a community may be transformed by adversity, developing new modes of functioning that take it along a new path. A resilient community can adapt to new circumstances and create new institutions and practices that carry its values forward.

As these terms make clear, resilience is a dynamic property of systems. A system may express resilience, insuring its own continuity, in ways that maintain its components but it may also transform or eliminate components. Thus, a community may express resilience that maintain its continuity and growth as an entity in ways that are distinct



3.3 Dimensions of Social Capital

Social capital is a broader concept than social support and social networks with multiple dimensions (Ferlander, 2007). The most common definition of social capital used in the health sciences originates with Putnam, which emphasizes the role of relationships, networks, trust, and norms. This definition arose out of empirical studies of the performance of regional government in Italy (Putnam, 1993). Putnam defined social capital as consisting of five principal characteristics, namely:

1. Community networks: number and density of voluntary, state and personal networks.
2. Civic engagement: participation and use of civic networks.
3. Local civic identity: sense of belonging, of solidarity and of equality with other members of the community.
4. Reciprocity and norms of cooperation: a sense of obligation to help others, along with a confidence that such assistance will be returned.
5. Trust in the community.

A key point of Putnam's work is that while social capital is often measured by gathering data at the individual level, its impact is collective, thus making it a qualitatively different concept from social support). For example, all individuals living in neighbourhoods where there are high levels of trust and civic engagement may benefit from these community characteristics—even the individuals who are suspicious of others and engage in no civic activity; any resident will be less likely to be a victim of crime and will be able to access a comprehensive social safety net in times of need, regardless of their individual contribution toward social capital. There is thus a complex relationship between individual- and group-level factors in social capital, which raises important questions about measurement, another issue of critical debate in social capital research. Most empirical studies in public health anchor the concept of social capital around levels of trust, community participation and community/individual networks. This transcends conventional social network/social support theory, which exclusively concentrates on an individual's social relationships as a variable of interest, by focusing on the role of group values and norms, rather than the characteristics of individuals. These values and norms, in turn, can be thought of as aspects of culture that influence both individual and collective identity.

One area of continuing debate, which much of the empirical and theoretical literature has not quite confronted, regards the question of whether social capital should be

conceptualized as primarily a property of neighbourhoods, groups and communities (ecological social capital), or primarily a property of individuals. While related, individual-level and ecological-level social capital may capture separate processes that differentially affect everyday experience—and, ultimately, individuals' mental health and well-being.

Although social capital was conceived of as an integrative concept with multiple dimensions, these dimensions may not all fit a given social context equally well. Accordingly, it may be more useful to think in terms of different types of social capital, recognizing that not all forms will be present or equally important in communities that vary widely by size, composition, history, and way of life. Such a conceptualization would reflect concepts of social support, which has often been divided into various types, for example the division between instrumental, informational and emotional support.

Uphoff (2000) defines social capital as consisting of two dimensions—structural and cognitive. Both *structural* and *cognitive* social capital are primarily conceptualized as properties of collective entities (e.g. neighbourhoods) rather than properties of the individual. Structural social capital is seen as consisting of relationships, networks, associations, and institutional structures that link people and groups together. These factors can thus be crudely measured numerically through an analysis of linkages and network density at a community level. This direct observation and enumeration will not be influenced by the perceptions of individuals within the sample, thus leading to some form of independent assessment. Cognitive social capital consists of values and norms of reciprocity, altruism and civic responsibility. Thus, cognitive social capital taps into shared patterns of cognition and subsequent social behaviour explicitly attempting to describe what Uphoff calls “collective moral resources.”

As an extension of his previous work to address power relationships, Putnam (2000) formulated two dimensions of social capital: *bonding* (within group) and *bridging* (between group). Bonding social capital is inwardly focused and characterized by homogeneity, strong norms, loyalty, exclusivity, and a reliance on solid intra-group ties. Bridging social capital is outwardly focused, linking diverse groups and people; it is between groups and usually characterized by weaker ties.

Although the distinction between bonding and bridging social capital is theoretically interesting, it has rarely been empirically employed as a framework in studies of social capital and health. There are numerous questions regarding how this division could be used or measured. Furthermore though this distinction stimulates further thought regarding social capital, it still does not address issues of power and



3.4 Social Capital in Aboriginal Contexts

The vast majority of the research literature on social capital and health has focused on general population samples from the U.S., Canada, Australia, or Europe. Likewise social capital theorists have generally eschewed a detailed discussion of factors such as culture, race and ethnicity; instead taking a broad-brush approach to their conceptualization of social capital. Fortunately, a handful of scholars have recently taken the social capital concept and attempted to assess its utility in the Aboriginal context.

Mignone and O'Neil (2005a, 2005b) pioneered this approach in Manitoba. They worked with three communities in Manitoba, conducting in-depth qualitative research to identify dimensions of social capital to measure, and then used this list to create a questionnaire. The researchers eventually created a 99-item questionnaire and a 55-item short version to measure social capital in an Aboriginal context. Mignone suggests that this tool can be used to assess the strengths and weaknesses of a community, guiding and prioritizing subsequent policies. Their work led them to create the first framework of social capital that was grounded in the experience of First Nations people. This was done through a "concept analysis" of the qualitative data. This analysis led to an emerging framework dividing social capital into three dimensions useful for the First Nations context: (i) bonding; (ii) bridging; and (iii) linking (this last category is similar to "vertical social capital" discussed above). Mignone and O'Neil conclude that social capital in a First Nation community is based on the degree to which (2005a, p. 27):

- the communities resources are socially invested;
- there is a climate of trust, norms of reciprocity, collective action, and participation;
- the community possesses flexible and diverse networks that are include all members of the community.

Mignone and O'Neil (2005a, 2005b) have described plausible linkages between the components of social capital identified above and community level health, especially youth suicide. They argue that a community where more resources are "socially invested" will confer community-level protection against suicide risk factors such as hopelessness, lack of meaning to life, instability, and lack of control. Social capital and socially invested resources will manifest itself in stronger and self-confident communities with strong social networks and community pride.

The work of Mignone and colleagues is important for various reasons. It documents community-level characteristics that could be indicative of higher or lower

levels of social capital in Aboriginal contexts. These include conventional measures of social capital, for example trust and reciprocity. They also include characteristics more specific to Aboriginal communities. These include language revitalization programs and collective ceremonial or spiritual practices (for example sweatlodges or powwows). Their work takes the appropriate first steps to understand the cultural appropriateness of social capital in the Aboriginal context. The authors have created a culturally grounded framework based on in-depth qualitative methods. They have made plausible theoretical links between this framework and health, simultaneously creating an instrument to measure community level social capital grounded in empirical research. Their work suggests that the concept of social capital may be a very useful proxy for the measurement of community resilience among First Nations. Indeed, this position is taken by Ledogar and Fleming (2008), who argue that collective efficacy and social cohesion are key aspects of social capital particularly relevant to community resilience in Aboriginal contexts. Collective efficacy is important because Aboriginal communities have traditionally faced exploitation, racism and colonialism. Defending communities against these forces can be considered an important component of social capital and community resilience. New assaults on Aboriginal communities have come from global enterprises wishing to make money from Aboriginal communities. As such, bridging and vertical social capital is considered protective in that it can assist resistance to these external threats.

3.5 Summary

Community resilience has been discussed largely in terms of social capital and related constructs. Despite the diversity of approaches to the definition and measurement of social capital, there are a number of common themes and trends. First, most theorists agree that social capital is based on four main factors: networks, relationships, norms, and trust. Secondly, while some argue that social capital can be defined and measured as a property of an individual, others recognize it as a property of a social system or ecological unit such as a community. This social-ecological approach is found in the small body of work that examines social capital among First Nations (King, Smith & Gracey, 2009; Waldram, Herring & Young, 2006). Finally, a number of distinctions among types or dimensions of social capital have been made (e.g. cognitive, structural, bridging, bonding, horizontal, vertical) to fit the different contexts and social realities of communities.

Unpacking the notion of social capital can help with devising models and measures that can address the



great diversity of First Nations, Inuit, Métis, and urban Aboriginal communities. The challenge is to identify the dimensions of social capital that best fit the context of Aboriginal communities. Given their great diversity, it is likely that no single model will be applicable across all communities. Instead, we need a toolbox of constructs and corresponding measures that can be selected according to the characteristics of specific communities.

The contextual variables that will influence the appropriate model or dimensions of social capital include: (i) size or scale of the community; (ii) heterogeneity of the community; (iii) geographic location (urban, per-urban, rural, remote); (iv) history of the community, including whether it constitutes a longstanding social group or one newly formed under extrinsic pressures (e.g. relocation); (v) historical and current relationship to other Aboriginal groups and neighbouring communities; and (vi) cultural, social and historical values and norms influencing relationships with others within and outside the community.

4. COMMUNITY RESILIENCE IN ABORIGINAL CONTEXTS

Aboriginal people and organizations have found the concept of resilience useful because it focuses on strengths rather than weaknesses. Resilience theories emphasize the importance of family, community and culture in “countering the stresses that families encounter” (MacDonald, Glode & Wien 2005, p. 361). Culture and community can provide a sense of “mastery, self-esteem and ethnic identity” (p. 361). In an ecological, contextual or relational view, the individual, family unit, community, nature, and the spiritual world are interconnected. “Adaptation” is a process of balancing in which the whole of the person comes into play, including mind, body, spirit, and social-environmental context. The process of adjustment and finding balance draws resources from each of these domains. Resilience therefore involves holistic, complex, interacting relationships.

HeavyRunner and Morris (1997) outline some features common to many Aboriginal worldviews that may contribute to resilience. These include values, beliefs and behaviours related to spirituality, child-rearing, extended family, veneration of age/wisdom/tradition, respect for nature, generosity and sharing, cooperation and group harmony, autonomy and respect for others, composure and patience, relativity of time, and non-verbal communication. Each of these has expressions at the level of community as well as individual values, attitudes and behaviours.

Though there are certain shared and consistent elements to Aboriginal worldviews and values, it is important to recognize the wide variation in social contexts, cultural identity and spiritual practices across different First Nations, Métis and Inuit communities (Ledogar & Fleming, 2008). There are also significant cultural differences between communities in a particular region. Moreover, even within a community, individual and group processes involving culture, religion, spirituality, and community renewal can take different forms. Not all members of a given family, community or region will share the same spiritual or religious identity. Communities can contain this diversity within broader notions of identity and belonging.

4.1 Aboriginal Concepts of Health and Well-Being

Aboriginal approaches to resilience tend to consider the whole state of the person, describing well-being in terms of the balance of physical, cultural, emotional, and spiritual elements as depicted in the medicine wheel or other metaphors drawn from the natural world (Bartlett, 2005; McCormick, 2008). From this perspective, resilience is not an exceptional quality of some fortunate individuals, but the “natural, human capacity to navigate life well” (HeavyRunner & Marshall, 2003).

Many Aboriginal traditions have rich vocabularies to discuss healing and renewal, with multiple terms expressing “living well” (Adelson, 2000a; Gross, 2002) or having “strong will” (HeavyRunner & Marshall, 2003). Inner resilience is realized through a variety of practices encompassing spirituality, family strength, the role of Elders, ceremonial ritual, oral tradition, cultural identity, and support networks (Lavalley & Clearsky, 2006). Understanding resilience in Aboriginal communities requires attention to these indigenous conceptualizations of well-being, identity and “living a good life” that include dimensions of experience ignored or downplayed in categories derived from Eurocentric ways of knowing (Lavalley & Clearsky, 2006).

Lafrance, Bodor and Bastien (2008) discuss the congruence between Aboriginal worldviews and theories of resilience, especially in modern theories of childhood. The Aboriginal resilience framework emphasizes family, identity and cultural formation. Within Aboriginal frameworks, Elders must cooperate with youth to transmit philosophies, knowledge and principles within Aboriginal culture. Youth have the important role of making the transmitted culture workable in the contemporary economic, political and social environment. In the Aboriginal context, priorities for community well-being include: shared parenting and



community responsibility for children; emphasis on language as a source of renewed culture; knowledge of history and tradition as a key element of identity; development of traditional skills; emphasis on the importance of kinship and connection with one another; and spirituality and respect for nature. The authors identify similar emphases in modern resilience theory focusing on the child. According to resilience theory, protective factors for children include: one person who values and respects the child; contribution to the community; development of spirituality and identity; development of a talent or skill; and contribution to one's community. Resilience theory thus provides a way to "reconcile" important aspects of Aboriginal and western knowledge and values. However, despite their awareness of Aboriginal contexts, Lafrance and colleagues seem to define resilience quite narrowly in terms borrowed from Rutter (2001); truly engaging Aboriginal perspectives may require a shift in values and priorities of conventional models of resilience with corresponding community-oriented interventions.

There are important convergences between current thinking about community resilience and Aboriginal concepts of health and well-being. Aboriginal worldviews emphasize the interconnectedness of all beings with their environments. Indeed, human beings and the environment form one large interacting system. This systemic view that approaches each element or aspect of experience as related, so that changes are not simply additive but interact in nonlinear ways: a small change may have very large effects over time as it is amplified by the response of other parts of the system. Human agency is only one element in this dynamic system. In traditional systems of knowledge other forms of non-human persons and non-human agency are recognized. Thus, human beings have practical and moral obligations to maintain good relations with all aspects of their social, physical and spiritual environment.

There are parallels between indigenous notions of the person and ecological perspectives in developmental psychology and resilience theory. Aboriginal concepts of the person have been described as sociocentric, communalistic or relational, emphasizing the interconnectedness and interdependence of individuals within the family and community (van Uchelen, 2000). This relational self is balanced by a strong recognition of individual autonomy of thought, feeling and experience. In addition to this relational orientation, many Aboriginal cultures foster a sort of ecocentric self, in which the person is seen as strongly connected to the environment, the animals, plants, and forces of nature (Stairs & Wenzel, 1992; Kirmayer, Fletcher & Watt, 2008). Finally, many Aboriginal traditions emphasize a spiritual dimension to the self, in which the

person in transaction with a spirit world of ancestors, non-human persons or animal powers that influence human life.

This points toward the possibility of translating between the two knowledge systems or constructing a synthesis of indigenous knowledge and ecological science. The key tenets in this synthesis would include: a) reality is dynamic and constantly changing, as opposed to stable and consistent; b) adaptation is a key process in the relationship between humans and their environments; c) the process of adjustment and balancing draws on resources of the individual, family, community, and the natural and spirit worlds; and, d) resilience rests on the interaction and holistic interconnection of these spheres (Fleming & Ledogar, 2008a, 2008b; LaBoucane-Benson, 2005). An Aboriginal perspective would move resilience away from a simple, linear view of risk exposure, resilience and outcome, toward a more complex, interactional and holistic view. Aboriginal knowledge would add to resilience theory an emphasis on relational, cultural and spiritual dimensions. Culture here includes the role of traditional activities, such as spirituality, healing practices, and language in dealing with change, loss and trauma. Approaching resilience from Aboriginal perspectives can generate new and compelling models of wide relevance and applicability.

4.2 Historical Context

Aboriginal resilience must be understood in relation to the specific forms of adversity that Aboriginal individuals and communities have faced. These stem from the history of colonization, the unequal power and exploitative relationships that came with contact with Europeans, and the subsequent state machinery of regulation, control and active suppression of Aboriginal cultural traditions, community and autonomy (Kirmayer, Brass & Tait, 2000; Warry, 1998). Each Aboriginal community may face additional adversities specific to its history.

Duran and colleagues (1998) list six interconnected phases in the disruption of Aboriginal life in the U.S. that have close parallels in Canadian history: (1) first contact; (2) economic competition; (3) invasion and war period; (4) subjugation and reservation period; (5) boarding school period; and (6) forced relocation and termination period. These events have produced drastic transformations in Aboriginal life, involving loss of identity, trust, and connection to land and community (Hill, 2006). Historical losses and suppression of culture along with contemporary forms of marginalization and exclusion, including racism and discrimination, can interact with other vulnerability factors, such as poor parenting or health problems to increase the risk for a specific population or group. Each of these risk



levels of family satisfaction. Less successful participants on the other hand, reported a history of family abuse, living in a dysfunctional neighbourhood and friendships with misbehaving peers.

In a discussion of resilience, Inuit elders repeatedly emphasized the importance of connections to others as a source of resilience and a means of suicide prevention (Ajungniq Centre & Korhonen, 2007). In order to overcome hardship, they said, people must feel that others love and care about them. They also suggested that people must find opportunities to talk about problems and emotions so that negativity does not become overwhelming. Finally, the elders emphasized the importance of intergenerational communication in sharing coping skills.

Values associated with family and connectedness is reinforced by ideas from other domains of traditional knowledge. For example, Boss (2006) describes how Aboriginal notions of the cyclical nature of time and the human lifecycle enhance individuals' ability to deal with the challenges of caretaking a family member with dementia.

4.3.2 Oral Tradition and Storytelling

Stories and storytelling plays a central role in many Aboriginal traditions (King, 2003). Stories provide a way of talking about stressors and change that can enhance resilience (MacDonald, Glode & Wien, 2005). The narratives presented through stories have their origins in collective history, spiritual traditions and lived experience. They serve to link the generations, transmitting knowledge, values, and a sense of shared identity. The act of storytelling and listening itself is a way to connect people and create a sort of *communitas*—a lived sense of belonging and solidarity.

In Aboriginal communities, oral tradition reinforces social connections. Aboriginal languages often have specific terms that define the social relationships, roles and rules of conduct between persons (LaBoucane-Benson, 2005). Many relationships have a sacred aspect, involving harmony, cooperation, and periods of quietude, stillness and introspection (Heavy Runner & Morris, 1997). Aboriginal cultures also incorporate a tradition of oral storytelling which builds ties between family and community members and encourages moral and spiritual growth (King, 2003).

Denham (2008) refers to the oral tradition of teaching in Aboriginal families as a circle of learning and teaching in which the wisdom of ancestors guide current family members. Denham provides an in-depth analysis of how a Native family in Idaho uses narrative as a source of family strength. The family often discussed traumatic “risk” experiences, including the brutalities of colonialism and

current struggles such as racism and economic difficulties. Yet they reframed their narratives of trauma to promote resilience. The process involved connecting the personality traits, struggles and accomplishments of ancestors to current family and individual struggles. Through stories, the positive features of ancestors were captured in family and individual identity. Thus, past traumatic events were given significance and contributed directly to the construction and transmission of family identity. Families used a particular style of narrative “emplotment” in which narratives were fashioned according to a “strengths-based perspective” that highlighted the successes of family members in overcoming difficulties in traumatic conditions (Denham, 2008, p. 405). Stories emphasized learning and positive outcomes rather than failure or negative results. The narratives did not focus simply on events or manifest content, but showcased challenges, survival and persistence.

LaBoucane-Benson (2005) has also written on the way individual resilience connects to group and community resilience in such communal practices. Each member's skills, for instance, storytelling or drumming, help the family and community to adapt and function to support changes. Processes of collective sharing of stories allow for the transmission of protective features from individual to group. Traditional storytelling often employs humor to re-frame historical events and human foibles; this can mobilize a playful, creative, and open way of thinking and relating (Gruber, 2008; King, 2003). Sharing personal narratives also can work to enlarge the view of Aboriginal peoples in the mainstream society (Dion, 2009). This education and engagement of the public is an important process to insure that Aboriginal communities find a positive reflection in mass media and in their relations with other communities.

4.3.3 Connection to the Land and Environment

There is growing recognition in environmental studies and geography of the importance of place for individual and collective identities as well as health and well-being (Cosgrove, 2000; Gesler & Kearns, 2003). Research with non-Aboriginal peoples suggests that consciousness of the human relationship with nature may have benefits for both physical and mental health (Kaplan, 1995). This impact might be expected to be stronger for people whose lives and traditions have been linked to the land and the natural environment.

Indigenous people around the world have worldviews that recognize the links between place and health. However, notions of “place,” “land” and “nature” have cultural specificities that must be taken into account to appreciate indigenous worldviews (McGregor, 2004). For most



Aboriginal peoples “the land represents more than just the physical or symbolic space in which people carry out their daily activities” (Wilson, 2003, p. 88). The Aboriginal connection to specific places is “fundamentally *interpersonal*” (Gone, 2008, p. 394). A study by Richmond and colleagues (2004) illustrates this idea, quoting a Namgis First Nation participant who stated, “the rivers and mountains and stuff are people in the family” (p. 356). At the same time, the land and the natural world constitute a larger encompassing reality of which the person is but one element (Kirmayer et al., 2008a).

The term ‘Land’ . . . is not restricted to the physical environment only. It has a much broader meaning, used by indigenous people to refer to the physical, biological and spiritual environments fused together. The closest scientific equivalent of the ‘Land’, taken without its spiritual component, is ‘ecosystem’ (Gleb Raygorodetsky in Gwich’in Elders, 1997, p. 14, cited in MacGregor, 2004).

In many Aboriginal worldviews, the environment is seen as constantly in flux, exposing the person to many challenges and disruptions that require constant adjustments (Robards & Alessa, 2004). At the same time, there is an assumption that life makes sense, that there is a higher or ultimate harmony or balance that can be experienced by the individual who attends closely to the natural world, including their experience.

In Canada, Aboriginal people clearly understand that their collective identity, health and well-being are intimately connected to their relationship to the land (Isaac, 2009). Knowing how to survive on the land and being able to maintain oneself and one’s family through economic activities associated with the land provides a path to develop and maintain self-efficacy and self-esteem (Richmond, 2007; Richmond et al., 2004; Wexler, 2006).

An analysis of data from the Cree Health Survey in Quebec found that spending time in hunting camps in the bush was associated with less psychological distress (Kirmayer et al., 2003). Ethnographic work found that community members frequently mentioned the psychological benefits of bush activities, which involve contact with nature, spiritual relations with animals, consumption of valued foods, and participation in traditional activities. Time in the bush was reported to increase family solidarity and social support, cultural identity and physical strength. Of course, the experience of connection to the land may also vary within a community by gender, age, and other individual and social characteristics.

Consumption of “country foods” is associated with feelings of health and well-being among Inuit, Cree and other Aboriginal peoples (Borré, 1991; Kirmayer et al., 2008a; Tanner, 1979, 2004). As well as the association between food, blood and mental well-being, connection to the land itself is viewed as having mental health benefits (Kirmayer et al., 1994; Therrien, 1987). This connection may be experienced and expressed through ceremonial and subsistence activities. A recent study with Aboriginal people in Australia demonstrated the health benefits of “caring for country” activities, including spending time on country, the seasonal burning of grasses, gathering of food and medicinal resources, performing ceremonies, production of artworks, and protecting sacred areas (Burgess et al., 2009).

Aboriginal perspectives on healing recognize this connection between the individual and the natural environment. Hardship and difficult emotions are considered part of life that can be mitigated through careful and considerate interaction with the land. The land provides ways to regain a sense of balance and well-being in difficult moments. In a study of healing in B.C., one participant stated: “[w]e were taught you go down to the river when you are stressed. . . I was taught by the elders that when you are blue and sad to go to the river and let the river draw that sadness out of you” (Strickland et al., 2006, p. 9). This very personal way of relating to place is also found in Wilson’s (2003) in-depth interviews with First Nations participants: “I talk to the trees and they listen. They take my problems away” (p. 90), and in the words of an Inuit elder discussing resilience: “[i]f you are at home being depressed and unhappy there is a place you could go – outside; that is the best place to take away bad things from your mind” (NAHO, 2006, p. 19).

For some urban Aboriginal people, many of these activities are now framed as “leisure” but their meaning goes well beyond that of other forms of recreation. Iwasaki and Bartlett (2006) describe how some Aboriginal individuals in Western Canada proactively cope with stress through culturally meaningful leisure activities. In Aboriginal cultures, leisure activities are located in a worldview that includes belief in the sacredness of all things, and reciprocal and interdependent relationships between human society and nature. Dance, music, sport, art, religion, and spiritual practices all emphasize engagement in a cyclical and ongoing pattern of life. Participants in the study noted many stressors related to health issues and social structural problems, such as lack of housing, poverty, discrimination, and political conflicts. Yet activities such as visiting the reserve, going out on the land camping or simply walking about, significantly relieved stress levels. Iwasaki and



4.3.5 Spirituality and Ceremony

Spirituality has received increasing attention in the resilience literature. Aboriginal spirituality emphasizes several elements, including: interconnectedness with others; a sense of the sacred; efforts to renew oneself; balance and harmony; and desire for lifelong learning. In Aboriginal societies, spirituality is an important aspect of cultural strength.

Aboriginal spirituality may protect against alcohol use, the impact of discrimination, and suicide (Fleming & Ledogar, 2008a). A study in two Northern Plains American Indian communities found that strong cultural spiritual orientations (as indicated by endorsing statements on a question such as “there is balance and order in the universe,” “I am in harmony with all living things”) was associated with lower risk of suicidal behaviour than others to make suicide attempts (Garoutte et al., 2003). This benefit of spirituality persisted when age, gender, education, heavy alcohol use, substance abuse, and psychological distress were statistically controlled. A study in an Inuit community in Nunavik also found that frequent attendance at church was associated with lower suicide risk among youth (Kirmayer et al., 2003).

Spirituality may serve as a strong buffer against depression (Perez, 2008). In circumstances of high stress, such as the loss of loved one, serious illness, homelessness, or severe psychiatric illness, spirituality has been shown to significantly mitigate depressive symptoms. This may be because participation in a religious congregation or community provides social support. Religiosity and spirituality also tend to increase hope, positive affect, meaning making, and coping mechanisms while reducing negative feelings (Boehnlein, 2007). Individuals who report higher levels of religious or spiritual belief and practice are less likely to engage in risky health behaviours and generally engage in stable and positive health practices. The positive relationship between religiosity and physical health, and mental health holds even when controlling for variables such as gender, ethnicity, income, or education (Koenig, 2009).

Of course spirituality and religious identity may also be sources of conflict within families and communities. Different forms of spirituality and religious practice are available in most Aboriginal communities and individuals within the same family may have different levels of engagement or even follow different paths (Adelson, 2008; Tanner, 2008). Some traditions are critical of other paths, while some are more tolerant. Given the diversity in some communities, explicit values of tolerance and respect for individuals and for other groups may be important to promote a sense of solidarity and belonging despite differences.

Ceremonial activities such as the sweatlodge can be highly effective in forging a sense of connection to others in the community. Participants in a sweatlodge reported higher levels of self-discipline, self-actualization, caring for others, and sense of creativity after a ceremony (Schiff & Moore, 2006). Practices like the sweatlodge reinforce collective identity while providing participants with a rich, emotionally charged metaphoric language for transforming experience. For example, at one Southern Plains treatment centre, people with addictions attend a sweatlodge ceremony in which they visualize heat, rocks, wood, fire, and offerings as elements of cleansing and restructuring their lives (Bigfoot & Dunlap, 2006). Other ceremonial activities can also contribute to an embodied sense of identity and healing (Dion Stout & Kipling, 2003).

4.3.6 Cultural Knowledge and Identity

A prominent theme in studies of community protective factors is the importance of cultural knowledge and identity. It has been repeatedly shown that engagement with traditional beliefs and practices has considerable influence on Aboriginal well-being (Reynolds, Quevillon, Boyd, & Mackey, 2006). For example, a study of American Indian and Alaska Native students, researchers found that youth subject to stress exhibited resilience because they were “embedded in traditional culture” (Strand & Peacock, 2003). In this study, connection to tradition involved several characteristics, including: “feeling good about tribal culture,” participating both in Native and mainstream worlds, feeling a strong belonging to community, appreciating parents and Elders, and being exposed to a Native school curriculum. In a recent study of First Nations communities in Saskatchewan, McKay and Prokop (2007) found that children’s resilience was enhanced by a strong sense of belonging to a vibrant community that “celebrates its own culture and history” (p. 47). Tradition reinforces resilience through the values of belonging, mastery, independence, and generosity (Brendtro, Brokenleg & von Bockern, 2001).

In a study of health issues among Aboriginal women, Walters and Simoni (2002) observed that spiritual and cultural engagements like the sweatlodge ceremony and Native crafts contributed to positive “identity attitudes” in women, mitigating their negative health concerns. These traditional practices offer an “indigenist” alternative to mainstream health interventions and so participation affirms cultural identity. Adelson (2000) has also observed how indigenous communities foster vitality and renewal through the creation and promotion of pan-Indian identities, involving practices such as the powwow ceremony.



Others have defined enculturation in terms of people's identification to their culture, their sense of pride in their cultural heritage, and the extent to which they integrate their cultural heritage into their lives (Zimmerman, Ramirez, Washienko, Walter, & Dyer, 1995, 1999). Studies have generally shown that ethnic pride knowledge and practice of culture can serve as a buffer against stress and reduce negative health outcomes (Austin, 2004). For example, in a study of Anishinabe communities Whitbeck and colleagues (2004) found that enculturation, as measured by identification and by participation in cultural practices, tended to be associated with less alcohol abuse.

Identity tends to be seen as something defined by membership in a group, heritage or line of descent. However, identity is actively constructed by social interaction, narration, and embodied enactment. Identity then may be acquired by birth or by conscious choice, a distinction the Anishinabe scholar Gerald Vizenor (1999) calls, *natio* or *ratio*. In cultural psychology and medical anthropology, there has been a shift away from an essentialized view of cultural identity toward recognition of the negotiated nature of identity as self-fashioning and this has been applied to understanding Aboriginal identities (Gone, 2006, 2007; Waldram, 2004). Identity is embodied through lived experiences and narrated in specific social contexts, both of which depend on the nature of community. Identity also is supported by larger political struggles to assert collective rights (Niezen, 2003).

Gone (2006) discusses the complexity of American Indian identity. For example, some individuals assert an "authentic" Indian identity, based on blood quantum, language fluency or ceremonial practice. At other times "authentic" identity relies on "proof" of having been marked by the colonial experience, for instance by family alcoholism. Gone frames American Indian identity as a process of active "intentional construction" involving individual agency and both local and wider social influences. For this reason, Aboriginal identity cannot be approached as a single construct; rather, it varies depending on how people draw on cultural meanings and practices to make sense of their own experiences.

In urban settings, shared cultural practices may be more difficult to measure because people may have very different backgrounds reflecting differences in community affiliation, level of urbanization, cultural background, and education. Urban Aboriginal peoples are often dispersed throughout a city. Urban health providers often misidentify Aboriginal clients and make incorrect assumptions about their cultural practices (Macdonald, 2008). For all of these reasons, it has been difficult to conduct epidemiological research on

urban Aboriginal groups and there is little information available about their health status or other factors relevant to resilience.

Many Aboriginal people living in urban spaces are bicultural or multicultural; they may live or value a traditional way of life and they may be integrated to varying degrees into the mainstream culture or other ethnocultural communities (Clark, 2006; Sissons, 2003). Long and Nelson (1999) have shown that Aboriginal people living off-reserve in rural or metropolitan areas may be more consciously aware of tradition to maintain their cultural identity and affiliation whereas settlement/reserve-based Aboriginal people may participate in tradition without consciously articulating it as such. For individuals living in a remote community, many elements of tradition are embedded in their way of life; for urban Aboriginal people, many expressions of tradition must be actively sought and recreated. Measures of resilience must capture this diversity, which may differ within and between Aboriginal cultures and communities (Clark, 2006).

Aboriginal people often have multiple cultural traditions represented in their families, friends and communities. This may give rise to mixed or hybrid identities, with new values, attitudes and activities (Sissons, 2005). This diversity may also create tensions and contradictions that individuals must negotiate to maintain a sense of personal coherence, clarity and comfort with their identity (Brass, 2008). Resilience is also demonstrated by individuals who mobilize the strengths of multiple cultural commitments of the groups with which they are affiliated (Reynolds et al., 2006; Strand & Peacock, 2002).

The mental health consequences of multiple or hybrid identities depend, in large part, on the receptivity of the community. Traditionally many Aboriginal societies have been respectful of individuals' perspectives and small communities allow each person to be known by others in their individuality, in ways that go beyond stereotyping and may prevent stigmatization. However, communities may also demand conformity and have little tolerance for diversity. When a community feels stressed or threatened by divisive forces, there may be stronger efforts to re-assert a common identity and silence or suppress alternate perspectives and ways of being. Tolerance for diversity and explicit acceptance of some notion of pluralism in identity are important to allow individuals to find their place in the community (Niezen, 2005).

The pathways from cultural identity and knowledge to resilience and well-being are complex. A study of Southwestern American Indian youth living on reservation or in urban settings found that participation in American



Indian traditional activities actually correlated with less successful outcomes, including higher levels of substance use. The authors suggest this counter-intuitive result may reflect the fact that since youth often attend traditional activities with their friends, these activities may increase the likelihood of negative peer influences. Waller, Okamoto, Miles, and Hurdle (2003) have also argued that due to values of collectivism and non-interference in Aboriginal cultures, children who are pressured to use drugs or alcohol may have a difficult time resisting. It also may be more difficult to refuse drugs from family members than from other peers at school. Then too, being more visibly indigenous may expose youth to greater levels of racism and discrimination which may, in turn, have a negative effect on their coping and well-being.

These examples make it clear that cultural identity does not operate in the same way for all groups of youth; rather, the meanings and implications of culture specific to each context must also be taken into account. Thus, although culture can be an important source of strength and wellness for individuals and communities, it cannot be conceived nor applied as a “one-size fits all” solution. Careful consideration must be given to how historical, social, economic, and political realities affect specific and global cultural aspects in turn, impact community members and the community as a whole.

4.3.7 Cultural Continuity

A key element of resilience is the “persistence of identity” or a subjective sense of sameness over time, despite internal or external change. Identity persists because experience is continually integrated through language into meaningful sequences (Chandler, 2000). In this view, every individual is an author who reflects on the diverse episodes and events of his or her life and connects them to form a more or less unified story.

At the individual level, Lalonde (2006) describes two common cognitive strategies for maintaining identity: (i) identifying a stable underlying essence that remains the same over time and across situations; and (ii) constructing a narrative that links disparate aspects or versions of the self through descriptions of processes of change and transformation. Individuals (and cultural communities or traditions) may emphasize one more of identity construction more than the other. Those who “essentialize” tend to deny changes in identity, insisting on a stable personal core and those who “narrativize” foreground change while maintaining certain threads of continuity. In a study in BC, Lalonde found that Aboriginal youth tended to use the narrativizing style of identity construction. This style

may confer resilience in the face of rapid change as youth simultaneously reinterpret their external realities and find consistency in their internal worlds. According to Reynolds and colleagues (2006), resilience is apparent when a person is able to deal with contextual changes while maintaining identity factors, such as traditional values, beliefs and behaviours, with few personal or social difficulties.

Extending the notion of continuity of personal identity to the continuity of collective cultural identity, Chandler and Lalonde (1998, 2008) have conducted an important set of studies linking community indicators of health and well-being with community characteristics. They found that indicators of greater “cultural continuity” in the community were associated with better mental health, including lower suicide rates and school dropout rates. They define “cultural continuity” as a “workable personal or collective... mechanism” that reinforces “responsible ownership of a past and hopeful commitment to the future” (Chandler & Lalonde, 2008, p. 222). Originally, Chandler and Lalonde (1998) identified a set of indicators of cultural continuity including local (First Nation or community) control of education, police and fire, government, cultural centres, health, and social services. These were chosen partly for theoretically reasons but also because they could be readily determined by contacting a community representative. Most relate to the degree of control people exert over their “civic lives.” Subsequently the study was expanded to include a longer time period and more potential factors (Chandler, Lalonde, Sokol, & Hallett, 2003). The final set of factors found to be related included community efforts to: 1) secure legal title to traditional land; 2) establish self-government; 3-5) control local education, police and fire, and health facilities; 6) preserve and promote traditional practices; 7) involve women in local governance; and 8) take control of child and family services. The strongest effect on decreased suicide rates was with engagement in processes of self-government (which also strongly connected to the strengthening of traditional culture). The authors note that the “quest for self-determination” takes different forms depending on the community. For instance, in some communities success follows from renewing culture, while for others, priorities of land claims and education are more prominent. Collective means of preserving identity are linked to an individual process of coherence and continuity; both levels serve to mitigate suicide risk.

Extending this work, Hallett, Chandler and Lalonde (2007) found that among 142 BC First Nations communities, the preservation of indigenous languages had the strongest correlation with lower youth suicide rates, more so than processes of self-government, land claims,



education, health care, or cultural facilities. First Nations in which more than half the membership was fluent in their indigenous language experienced approximately 1/6 the rate of suicide of those without such language fluency. However, this effect of language may reflect the distinct context and variability of groups in BC. In other regions, language may not have the same predictive power. For example, there are very high rates of fluency and literacy in Inuktitut across the Arctic but many Inuit communities still suffer from high suicide rates. Similarly, several Quebec First Nations communities with good preservation of language nevertheless have high rates of social problems. Clearly, language can be a powerful source of resilience through its effects on strengthening identity, transmission of cultural knowledge and community cohesion. However, maintenance of Aboriginal language alone is not sufficient to protect communities from the effects of social adversity.

4.3.8 Political Activism and Collective Agency

Adger (2000) identifies a new focus in resilience research on the social, political and institutional mechanisms which determine resilience in relation to environmental change. He investigates the direct link between changes in ecological and environmental resources, and social resilience, using a case study of market liberalization and the privatization of mangroves in coastal Vietnam. He finds that social resilience in this community was decreased as privatization undermined common property institutions. Adger recommends focusing on several indicators of resilience in context of economic change: 1) Mobility and migration are significant markers. Labour mobility over time can point to either instability or stability in a population. Sometimes such moves can enhance resilience, and in other situations, relocation can have deleterious effects on communities in both sending and receiving areas; 2) Coping strategies used in a household or community facing economic and food insecurity, which can include voluntary or involuntary short-term adjustments, such as food choices, and other consumptive changes, or adaptation of income-generating activities; 3) Cultural modes of adaptation and local conceptions of human-environment interaction. The adaptation of a communal knowledge system, especially if it includes local technical knowledge, can counter larger lapses in trust generated by economic vagaries; and 4) Legal methods, such as maintenance of property rights are essential to resilience in a changing agricultural and economic context.

The evolution of resilience theory has paralleled changes in approaches to Aboriginal mental health that increasingly emphasized community empowerment, activism, autonomy

and control. These recognize Aboriginal persons as situated in current political realities that demand they balance traditional values with active negotiation and struggle for the authority and resources to direct their own lives and communities.

General discussions of identity tend to underemphasize the role of social action or collective agency in the production of well-being. According to Lavallee and Clearsky (2006) resilience is not only about self-definition, but also about “self-determination.” Engagement in political activism and other forms of collective action can articulate, assert and solidify collective identity.

In their discussion of community level factors related to the prevention of suicide, Kral and Idlout (2008) argue that the concept of “social capital” is limited because it does not focus enough on social action, collective agency and control in the production of well-being. They suggest that programs that focus on community empowerment may resonate with Innuqatigiitiarniq, the Inuit perspective on mental health which focuses on the “healthy interconnection of mind, body, spirit, and the environment” (p. 318). Similar conclusions were reached in a comprehensive review of suicide prevention programs (Advisory Group on Suicide Prevention, 2003).

Chandler and Lalonde (2008) note that the “quest for self-determination” takes different forms depending on the community. For instance, in some communities success follows from renewing culture, while for others, issues of land claims or locally controlled and culturally relevant education are more prominent. For many communities, resilience has been fostered through programs related to promoting traditional healing and well-being. In some cases, these have been supported by government community wellness initiatives, in others by the Aboriginal Healing Foundation or local organizations.

Based on his experience with Innu communities in Labrador, Samson (2008) is more critical of the value of collaborative efforts between government and communities, arguing that government bureaucratic programs tend to undermine autonomy and self-determination. He suggests that resilience can be better achieved through Innu recovering their culture on their own by living on the land, speaking Innu and regaining traditional knowledge. Given the tendency for outside interventions to undermine local autonomy and control, focusing on personal and communal agency may be a more effective way to overcome the structural and social adversities that communities continue to face.



Of course, political activism or other forms of collective action are not always positive for every group in a community. In a study by Carlton and colleagues of native Hawaiian youth, community movements had relatively little effect on resilience among Native Hawaiian adolescents. In fact some community factors impacted resilience negatively. The authors suggest that the Hawaiian sovereignty movement may have generated communal divisions and other frictions that have negatively affected youth (Carlton et al., 2006). Communities that report greater cohesion and community participation—whether due to political activism, social movements or shared tradition—may also alienate some individuals through lack of tolerance for difference and diversity (Onyx & Bullen, 2000).

4.4. Summary

Theoretically, communities with high levels of social networks and social support should be marked by a high level of community resilience. Indeed, some approaches to community resilience emphasize the social resources available to the community as instrumental. Adger (2000) refers to community resilience in terms of the quantity and quality of resources accessible to the community. Importantly, he states that the extent to which these resources can be modified to meet new challenges is of prime importance. Similarly, Breton (2001) suggests that community resilience is dependent on the stock of human and social capital within the community. Social capital, in this context, consists of people, networks and voluntary associations that can effectively mobilize individuals into action, as well as community services and infrastructure. In all of these conceptions of resilience, a community's strength is seen as residing in material and social resources.

In fact, these resources are always in the service of particular individual and collective goals, aspirations or “life projects.” Both everyday choices and larger political activities aimed at negotiating development must be understood in the context of these life projects.

Indigenous communities do not just resist development, do not just react to state and market; they also sustain ‘life projects’. Life projects are embedded in local histories; they encompass visions of the world and the future that are distinct from those embodied by projects promoted by state and markets. Life projects diverge from development in their attention to the uniqueness of people's experiences of place and self and their rejection of visions that claim to be universal. Thus, life projects are premised on densely and uniquely woven ‘threads’ of landscapes, memories, expectations and desires (Blaser, 2004, p. 26).

Table 1 (next page) summarizes the community resilience factors identified in the general literature and those specific to Aboriginal communities. There is much overlap among these constructs and even those that are independent interact in many ways to amplify the effect of each other.

What is absent from this list are the larger factors affecting the larger society in which Aboriginal peoples live, both at regional, provincial, national, and international levels. These larger systems have a profound impact on the resilience of Aboriginal communities. Hence interventions aimed at enhancing resilience must also consider the broader society and global systems. Respect for Aboriginal cultures and autonomy in the larger society will contribute to conditions that enable individuals and communities to use their own resilience to maximum effect.

5. MEASURING COMMUNITY RESILIENCE

The ability to measure community resilience is important in order to recognize communities that are doing well, to identify factors or processes that may contribute to resilience and to evaluate the outcome of interventions designed to increase community resilience. Although various community level factors that contribute to resilience can be measured (including social capital, cohesion and ecological capital), resilience itself is difficult to conceptualize in ways that can be directly measured. In effect, resilience must be “inferred by the presence of positive outcomes in the social, economic, cultural and environmental health indicators of community well-being” (Rolfe, 2006, p. 12).

As previously discussed, there are a variety of definitions of community resilience. Each definition or conceptualization of resilience implies a different measurement strategy, ranging from assessing and aggregating individual-level data to the measurement of community-level institutions and activities (Harpham, Grant & Thomas, 2002). Each of the approaches has specific strengths and weaknesses; each approach captures certain aspects of community resilience, while missing other aspects of the concept. In this section, we review recent work on measurement of community resilience as well as making some suggestions to advance the field.

Norris and colleagues (2008) note several caveats to measuring community resilience. First, the advantages of particular resources may not hold across varying levels of analysis. For instance, “place attachment” may decrease resilience in situations of forced relocation, or it might actually increase the will of a community to rebuild after



Table 1. Dimensions of Aboriginal Community Resilience

Resilience Domain	Dimensions	Indicators/Measures
Social Capital*		
Bonding	Cognitive	Trust in others from same group Belief that community is close knit
	Behavioural	Membership in groups within community Number of meetings attended in last year
	Structural	Strength of ties to groups within community
Bridging	Cognitive	Trust in others from other groups Sense of personal safety
	Behavioural	Membership in organizations based outside community Number of meetings attended in last year
	Structural	Strength of ties to groups outside community
Linking	Cognitive	Trust in health care professionals Trust in community organizations Trust in different levels of government
	Behavioural	Political activism
	Structural	Number of contacts/meetings with government
Ecological Capital**	Social Capital	(As above)
	Natural capital	Quality of environment
	Human capital	Knowledge, skills, values, diversity
	Built capital	Infrastructure (housing, water, power, communications)
Aboriginal Cultural Knowledge, Values and Practices	Family and Community Connectedness	Support from relatives Intergenerational communication Positive parenting and family communication Strengths-based interactions in families
	Oral Tradition and Storytelling	Knowledge of traditional stories Community sharing of stories
	Connection to the Land	Participation in land-based activities Consumption of country food Caring for Country (Burgess et al., 2009)
	Healing Traditions	Number of healers or others with healing knowledge Frequency of healing activities Number of people participating
	Spirituality & Ceremony	Number of Elders or others with ceremonial knowledge Frequency of ceremonies Number of people participating
	Collective Knowledge and Identity	Number of different types and frequency of activities to learn, honor or celebrate collective knowledge and identity
	Cultural Continuity***	Local control of fire, police, education, social services, and other organizations Cultural heritage centers
	Political Activism	Land claims, self-government, involvement of community in challenges to development

* Adapted from Derose & Varda, 2009; ** See: Hart, 1998; *** Chandler & Lalonde, 2008.



disaster. Secondly, broad resources such as economic status or social security are not culture-neutral, but often culture-specific. Mechanisms for assuring social standing and class are often specific to tradition, such as degree of filial responsibility and other customs. Norms for social reciprocity and emotional and kin support can vary even within a culture. Third, the authors note that resilience is not an unchanging concept but a process that stems from changing resources. Resilience should not be used in new ways to stigmatize communities.

Before reviewing current strategies and available measures, it is important to consider the potential uses of such information by policy makers, public health workers and researchers. This primary purpose of measurement in this domain is to compare and contrast community resilience over time and across communities. Measuring community resilience over time can indicate the efficacy of interventions or policies designed to buttress community resilience. For example, health promotion interventions or language revitalization policies in Aboriginal communities may aim to increase community resilience. In this case, longitudinal research can measure community resilience before and after the intervention to assess impact.

The other main reason to measure community resilience is to compare data from different contexts, communities and circumstances. These comparisons can help identify specific components of community resilience. In some cases, Aboriginal communities can be compared with each other, or with other communities in the general population in order to identify the shared and distinct aspects of resilience. Several studies, for example, have compared the results of communities in different locations to each other; or Aboriginal participants to non-Aboriginal participants (Carlton et al., 2006; Kirmayer, et al., 2003; Schiff & Moore, 2006; Silmere & Stiffman, 2006). These types of analyses can help identify resilient communities and lead to a better understanding of the factors that promote community resilience. On the other hand, vulnerable communities can also be identified and offered appropriate interventions to strengthen resilience.

5.1 Aggregating individual-level data

One way of measuring community resiliency is to aggregate individual-level data to produce an average indicative of resilience at the community level. In other words, community resilience is approximated by evaluating and averaging community members' resilience. The average of individuals' resilience is used to represent the community's resilience. Such an approach can rely on data that is either (a) routinely collected through existing systems and

procedures, or (b) specifically collected for the purposes of assessing community resilience.

Whitley and McKenzie (2005) outline a number of methodological traps in measuring correlations between social capital and mental well-being that are pertinent to studies of community resilience. Studies that use measures from individuals face problems of individual bias. Individuals' state of well-being or distress influences their perception of the community. People who are distressed may not perceive social capital in their communities; on the other hand, an individual with relatively good mental health may report high levels of social capital. To get beyond this individual perception, it is important to canvas many individuals in a community and to use methods other than individual interviews or questionnaires, including participant and community observation.

5.1.1 Existing or routinely collected individual indicators

Existing or routinely collected indicators refers to statistics that are collected as part of ongoing policies and programs. In the Canadian context, these statistics are often collected at the community (e.g. municipality or First Nation Reserve), provincial and federal levels. Examples of routinely collected statistics include vital registration (births, marriages, divorces, and deaths), census data (each decade), health services utilization data, and public health surveillance systems (especially concerned with notifiable diseases). Crime and educational statistics are often routinely collected as well. These statistics are generally not collected by academic researchers as part of an academic program of research. They are collected by government agencies aiming to document and monitor secular trends as part of their routine business.

Aggregating individual-level data collected through existing systems is extremely efficient and a relatively low-cost way to assess community resilience. However, such data collection remains underdeveloped in Canada (e.g. Smylie, Anderson, Ratima, Crengle, & Anderson, 2006; Smylie & Anderson, 2006). As well there are several methodological limitations to using this type of data. First, there is wide variation in what is routinely collected depending on the province, municipality or Aboriginal community. Each jurisdiction also has different ways of defining Aboriginal identity. Some Aboriginal communities collect precise and publicly-available data on health outcomes. Others may be more circumspect in collecting and releasing statistics on sensitive outcomes such as suicide and depression. Second, some statistics are routinely collected, but are not publicly available and are difficult to access, for both the community



CWB is a valid measure of quality of life, it is sensitive to changes over time, and as such “will be a useful indicator of the well-being in Aboriginal communities” (p. 17).

In the past few years, INAC has attached the CWB index score to their published First Nation community profiles as a comparative indicator of “well-being.” The use of routinely collected data has allowed researchers to see if policy changes have had a positive effect on First Nations over a 20-year period. In an application of the CWB to census data from 1981 to 2001, O’Sullivan (2006) concluded that despite the gains made by First Nations in their index score, the gap between them and other Canadian communities remains significant. A comparative analysis of First Nation and non-First Nation communities concluded that there is something about First Nation communities apart from isolation and small size that is inhibiting their ability to achieve well-being levels seen in comparable non-native communities (White & Maxim, 2007). Although it only offers some insight into a portion of what comprises well-being in Aboriginal communities, the CWB does offer an important first step in understanding well-being. Furthermore, it may serve to act as a baseline when considering the effect of policy decisions and other attempts to address the disparities seen in Aboriginal communities.

The work of Chandler and Lalonde (1998, 2008; Chandler et al., 2003) is also relevant to the development of an index of a community-level resilience in Aboriginal contexts. Though the focus of their study was not community resilience, they identified six indicators of “cultural continuity,” which relate to the degree of control people exert over their civic lives: 1) securing legal title to traditional land; 2) establishing effective self-government; 3) gaining control of social services, including education, police, fire and health facilities; 4) preserving and promoting traditional practices; 5) involving women in local governance; and 6) taking control of child and family services. These variables all could be assessed by simple questions to administrators or consulting existing databases. In later work, they found additional indicators that could also be extracted from existing records, including the status and progress of legal actions over land claims, the proportion of women in government and the level of traditional language use in the community. This work has opened a very promising avenue for identifying community strengths related to cultural continuity, local control and empowerment. However, to date all of their work has been with BC First Nations. This work needs replication in other regions of the country to determine whether the same indicators work for communities with different histories, geography and social structure.

5.2.2 Developing New Community Level Indicators

Community level indicators that are truly distinct from individual measures depend on observations of community structure and process (Harpham et al., 2002). Lochner and colleagues (1999) have proposed a model for measuring overlapping ecological components of social capital (Lochner, Kawachi & Kennedy, 1999). They identify four constructs that can be used as indicators of social capital: (i) collective efficacy, (ii) psychological sense of community, (iii) neighbourhood cohesion, and (iv) community competence. However there is little agreement on the best way to measure these constructs.

The community development literature has also considered the issue of how to assess the level of community capacity or empowerment. Domains of community capacity include: participation, leadership, problem assessment, organizational structures, resource mobilization, links to others, critical awareness, and program management (Bopp, 1999; Lavarack, 2005). Each of these domains can provide a measure of the level of community empowerment (Lavarack & Wallerstein, 2001).

A recent scan of community resilience literature and relevant reports revealed the need for a tool that could help communities in identifying and increasing resilience factors related to the health of racial and ethnic minorities in their community, and in decreasing disparities experienced within these communities (Davis, Cook & Cohen, 2005). THRIVE (Toolkit for Health and Resilience in Vulnerable Environments), developed by the Prevention Institute, consists of twenty resilience factors in the four areas: built environment, social capital, services and institutions, and structural factors.⁵ The *built environment* is defined as a community’s infrastructure, including street design, public transit, places for incidental and recreational activity, the availability of affordable and healthfood, safe housing, clean air, water and soil, and in general, an inviting and culturally appropriate environment for people to be. *Social capital* includes “connections among individual social networks and the norms of reciprocity and trustworthiness that arise from them” (p. 27), as well as socially dictated standards for behaviour, which might regulate activities such as alcohol consumption. Social capital additionally involves networks of trust and cohesion, action on behalf of the community, collective and civic engagement, and shared norms. *Services and Institutions* depends on access to quality, culturally appropriate public and private services and institutions, including local government, health care systems, social services, education, public safety services, community groups,



community organizations, faith institutions, businesses, and arts institutions. In low-income communities the availability and affordability of these services is particularly key.

Structural factors are broader elements such as race relations, and employment and economic opportunities. When THRIVE was piloted in three American communities (rural, suburban and urban), in New Mexico, California and New York City respectively, several issues emerged as priorities across the sites: healthy, affordable food, shifting focus to the needs of youth and implementing more youth services and programs; and learning to deal with community diversity, for instance the influx of new migrants and cultural groups. While elements of this toolkit could be adapted to Aboriginal communities, there are unique aspects of Aboriginal culture, history and context not captured by this measures oriented toward culturally diverse urban neighbourhoods.

In a recent study of First Nations communities in Saskatchewan, McKay and Prokop (2007) found that individual-level child resilience was enhanced by a strong sense of “belonging to a vibrant, positive community that proudly celebrates its own culture and history” (p. 47). Factors that contribute to a vibrant positive community may include powwows, sweatlodges, longhouse activities, and extent of traditional ceremonies. The extent of traditional dance, music, sport, art, religious, and spiritual practices could all indicate a resilient and active community. Indeed, such activities are often measured by urban sociologists to gauge levels of social cohesion and community need. These are frequent variables used in the measurement of social capital. The number and frequency of these activities and the level of participation could be assessed as a potential measure of community resilience.

One aspect of Aboriginal communities where developing new indicators could be useful concerns spirituality. There are difficulties in assessing spirituality in general because the term covers an increasingly broad array of meanings (Koenig, 2008). Moreover, in assessing spirituality among Aboriginal people, it is important to remember that spirituality is often expressed in “everyday” activities, for example, in caregiving, hunting or consuming traditional foods. This is augmented by more specific sacred activities such as powwows, sweatlodges, smudge ceremonies, or in many cases conventional Christian worship. Spiritual orientation and activity can be measured at the individual level and aggregated to the community (Garoutte et al., 2003). This might include self-report measures of extent of engagement in spiritual or religious practices such as prayer or attendance at religious/spiritual ceremonies and rituals. Community-level variables can

also be measured that indicate scope and extent of spiritual practices. This could include the number of sweatlodges, healing circles or church services held within a community within a certain period of time. Self-report measures can then be triangulated with community-level measures to better assess the role and impact of spirituality/religion in the community under observation.

Another factor that could benefit from such an approach is language retention. Researchers can investigate language retention through self-report measures of who does and does not speak the language and of its use in other settings like local signage or media. However small numbers of speakers may not necessarily indicate a low resilience community; the community may have an active revitalization program in place that focuses on other aspects of culture.

5.3 Measuring Resilience in Aboriginal Contexts

Much of the adversity faced by Aboriginal peoples reflects structural violence⁶: inequalities in power, economic resources and social capital that reflect the legacy of colonization, forced assimilation and cultural oppression that Aboriginal people in Canada have faced over several hundred years.

The resilience of contemporary Aboriginal communities is a consequence of complex historical and social forces. As such, any attempt to measure community resilience must consider historical factors. Just as the developmental trajectory of the individual across the lifespan contributes to individual health and resilience at any given point, so do the dynamics of development influence the resilience of communities.

Historical changes in communities have reinforced some elements of community life while destabilizing, transforming or casting aside other aspects. Many of these historical changes, therefore, cannot be interpreted as simply positive or negative—they involve complex tradeoffs made for survival. Community resilience is not simply a matter of forging blindly ahead or of recoiling from threats and adverse circumstances, but a process of engagement, negotiation, creative adaptation, and active challenging of the evolving status quo.

Similar dynamics may be at play within communities. Qualitative research suggests that internal conflict within communities, can have a corrosive influence on community life and resilience (Adelson, 2002; Morgan Phillips, *personal communication*, August 10, 2009). Likewise friction and conflict between a First Nation and the wider geographic community can also have a detrimental effect on well-



being. That said the outcomes of conflict, rather than the presence of conflict per se, that is the prime determinant of resilience. Qualitative research on resilience in Kahnawake, for example, suggests that the “Oka crisis” galvanized the community, giving them a sense of purpose and increasing communal esteem (Morgan Phillips, *personal communication*, August 10, 2009). The types, extent and outcomes of both internal and external political conflict again could be enumerated as a potential indicator of community resilience.

The legacy of the residential school system continues to have a profound impact on Aboriginal health and well-being (Stout, 2003). However, Aboriginal communities were differentially affected by the residential school system. Some communities lost a greater proportion of children to residential schools than others. Recent research suggests that attendance at an Indian Residential School is associated to distress not only among those who attended, but also their descendents (Bombay, Matheson & Anisman, 2009). The intergenerational transmission of trauma can occur both through family interactions and larger communal processes (Kirmayer et al., 2007; Serbin & Karp, 2006). The transgenerational impact of residential schools may depend on the proportion of parents in the community influenced negatively by these experiences, and the availability of alternative resources to support effective parenting and positive family life.

Whitbeck and colleagues (2004) devised two 12-item scales to measure the effects of historical trauma among American Indian individuals in the Midwest. They originally developed the scales through extended focus groups with Elders and other Indigenous individuals on reservations. During focus groups the participants were asked to share their ideas of loss. The authors extracted the most frequent themes from discussions and incorporated them into the *Historical Loss Scale*. They also developed a second scale, the *Historical Loss Associated Symptoms Scale* as a measure of the emotional responses triggered by the thought of the losses. The Historical Loss Associated Symptoms Scale could be viewed as a measure of how individuals have emotionally coped with and managed past and current losses. Although not a direct measure of the resilience process, it can approximate individual’s emotional resilience to collective adversity.

Using constructs like resilience across different cultures and communities raises issues of the equivalence of meaning and measurement. Burgess and Berry (2009) urge researchers to develop Aboriginal-sensitive measures. In some instances, scales administered in English may not accurately reflect indigenous conceptions of health, illness or resilience. Even where English or French are the languages of everyday life, Eurocentric categories can confound

results. For instance, in Aboriginal community contexts, the category of “income” on scales and questionnaires should include forms of subsistence production, and “education” should include traditional knowledge. Future studies might broaden definitions of successful functioning by examining other outcomes that are valued by Aboriginal youths and their communities (Silmer & Stiffman, 2006). Attention must also be paid to developing specific definitions of terms such as resilience or spirituality so that they are sensitive to Aboriginal conceptions. In a recent study, Schiff and Moore (2006) wanted to assess how spiritual elements of the sweatlodge translate to emotional well-being. They began the study with few available, relevant models. No existing instruments connect the two variables in context of a holistic, Aboriginal framework. In the absence of an ideal instrument, the researchers combined two questionnaires, the SF-36 and The Heroic Myth Index (HMI), for the purposes of the study. The SF-36 is a multipurpose health survey that provides a general measurement of physical and mental health. The HMI is a scale, based on Jungian psychology, that consists of 72 items reflecting various personality archetypes (innocent, orphan, warrior, caregiver, seeker, destroyer, lover, creator, ruler, magician, sage, fool, etc.). Schiff and Moore noted that Aboriginal participants seemed to dislike the SF-36 scale because of its limited, objective-style response options. Some participants had even written an “X” next to questions to indicate dissent. The HMI scale was better received, possibly because it involved more fluidity of response. It also avoided notions of deficit and focused more on strengths and resilience.

The deficiency of existing instruments is often compounded by a more basic problem termed the category fallacy (Kleinman, 1977). The category fallacy refers to the uncritical imposition of categories and constructs developed in one culture on another culture. Some of this can be seen in the social capital literature. For example, electoral turnout is often considered a valid measure of a community’s social capital. However, research suggests that in some active and presumably resilient Aboriginal communities, segments of the community may boycott Council elections as these are considered externally imposed governmental institutions. In this context, electoral turnout may not be an indicator of communal resilience. In fact, in the example just given, it could be the complete reverse: lower levels of participation in Council elections could indicate more cultural continuity, which as discussed above has been linked to community resilience. Qualitative research exploring the local meanings of potential indicators is essential to develop valid measures of resilience (Adams, Madhavan & Simon, 2006; Canino et al., 1997; De Silva et al., 2006; Ungar, 2004).



5.4 Summary

We have described measures of community resilience based on an aggregate or average of individual reports and on indicators of community organization and functioning. Using both methods provides a form of triangulation that strengthens the validity of any inferences made. This approach is advocated by Ungar and colleagues (2005) who argue that resilience can be best understood as an interaction of individual capacities and structural conditions, which are closely related to social, political and economic assets.

Developing appropriate indicators of community resilience can follow three basic steps:

1. Decide how to conceptualize resilience; what is the local definition of community resilience in your context (e.g. vitality of language and culture).
2. Determine which indicators/variables speak most strongly to this definition, and how they interpreted to represent community resilience (e.g. language use and cultural events).
3. Decide how to best measure the indicators (e.g. interview people on their use of language or count language teaching programs in the community); count number and frequency of cultural events in the community and level of participation).

Although it is intended to have predictive value, identifying communities that will do well in the face of new or continued challenges in the future, resilience is usually measured by evidence of having already done well despite past adversity. Only a well-established model of resilience that documents the value of certain indicators can allow the confident use of those as markers of future response. Promising indicators relevant to the historical context of Aboriginal communities have been identified but much more study is needed to insure these are applicable across diverse communities. As well, since resilience is not a fixed trait of individuals or communities but a dynamic response to changing circumstances. Research must therefore be attentive to the fluctuations of resilience over time.

6. PROMOTING COMMUNITY RESILIENCE

The key question from the point of view of health and well-being is how to increase, promote and maintain resilience in Aboriginal communities. Many types of intervention directed at individuals and whole communities may contribute to the development of community resilience (Richardson, 2002).

As discussed in Section 4 of this report, HeavyRunner and Morris (1997) outline some features common to many Aboriginal worldviews that may contribute to resilience. These include: values, beliefs and behaviours related to spirituality, child-rearing, extended family, veneration of age/wisdom/tradition, respect for nature, generosity and sharing, cooperation and group harmony, autonomy and respect for others, composure and patience, relativity of time, and non-verbal communication. This list overlaps with that developed in recent research with Inuit elders in Nunavut, who emphasized spirituality, interconnectedness with others, and knowledge of culture and traditional practices as sources of resilience (Ajunnginiq Centre & Korhonen, 2007). Tanner (2008) found that sources of well-being recognized by James Bay Cree included: shared parenting and community responsibility for children; emphasis on language as a source of renewed culture; knowledge of history and tradition as a key element of identity; development of traditional skills; emphasis on the importance of kinship and connection with one another; and spirituality and respect for nature. Others have found similar sources of resilience emphasizing themes of connectedness, spirituality, cultural knowledge, and tradition (Lavallee & Clearsky, 2006).

As can be seen from this brief summary, the themes that commonly occur as potential areas of action to promote resilience in Aboriginal communities are varied but center on factors such as cultural practices, tradition, spirituality, interconnectedness, and respect for land. Potential domains for action are listed in Table 2. Intervening in these broad domains may be the best strategy for enhancing community resilience. In briefly considering these domains, we will refer to examples of culturally sensitive prevention or resilience promotion programs with Indigenous populations that have been studied or documented (Ellis, 2004; LaFromboise & Lewis, 2008; Waller, Okamoto, Hankerson, Hibbeler, Hibbeler, et al., 2002). These prevention programs focus not just on reducing risk, but also on promoting protective factors which include resilience (Bogenschneider, 1996).

6.1 Revitalizing Language, Culture and Spirituality

Language, culture, spirituality, and ceremony are thoroughly intertwined in many Aboriginal communities. It has been repeatedly shown that engagement with traditional cultural beliefs and practices has considerable influence on Aboriginal well-being (Reynolds, Quevillon, Boyd, & Mackey, 2006). Walters and Simoni (2002) have written of the way Aboriginal women draw from indigenous cultural resources to combat stress and negative health effects. They discuss the importance of "enculturation," the processes by



activities and reinforce a sense of community, belonging, cultural knowledge, and pride. Such classes could also be open to some interested non-Aboriginal people to enhance linking social capital. This would have the added effect of improving understanding and appreciation of Aboriginal culture and worldviews in the broader society, which in turn, can contribute to resilience in Aboriginal communities.

In many Aboriginal communities, cultural knowledge and identity are transmitted through oral tradition. Facilitating the exchange and telling of stories may be an important factor in developing community resilience. Places and events should be set up that encourage story telling in Aboriginal communities. In the clinical setting, Gone (2006) has advised practitioners to assess their clients' "cultural identity status" in the process of formulating therapeutic goals. He suggests that practitioners support distressed clients in reconstituting cultural identity as a form of wellness. Undoing self-pathologizing narratives, for example, may help resolve identity confusion. The same process can occur at the community level. Narrative interventions can also be extended beyond the family, as when communities work to establish, maintain and access collective cultural and spiritual histories.

In the clinical setting, Landau (2007) encourages use of the "genogram," a pictorial display of family relationships and health histories, to map the connections between personal, historical and social events. This can help individuals to understand their predicaments in terms of larger historical forces. The same strategy can be extended to families, groups or whole communities through group discussions and explorations of collective identity.

6.2 Strengthening Local Control and Collective Efficacy

Many studies suggest that collective efficacy and local control are important determinants of well-being in Aboriginal communities. Ledogar and Fleming (2008) argue that collective efficacy is especially pertinent in the Aboriginal context; they cite the definition of Sampson and colleagues collective efficacy as "the capacity of a group to regulate its members according to desired principles – to realize collective, as opposed to forced, goals" (Sampson, Raudenbush & Earls, 1997, p. 918). Collective efficacy reflects the extent to which people feel they can count on their community to take specific forms of action needed to insure their collective well-being. Collective efficacy and local control are important because colonialism, government control and tutelage have undermined traditional political structures and autonomy. New assaults on Aboriginal

communities have come from global enterprises and market forces that operate without concern for local governance. Political activism allows Aboriginal people to defend their communities against these external forces. Local control can insure that services are tailored to the needs of the community (Bowles & Gintis, 2002).

The work of Chandler and Lalonde suggests that local control and collective efficacy in Aboriginal communities are key determinants of community well-being. In their studies, the predictors of health and resilience include: 1) securing legal title to traditional land; 2) establishing self-government; 3) controlling local education, police and fire, and health facilities; 4) preserving and promoting traditional practices; 5) involving women in local governance; and 6) taking control of child and family services. All of these factors can be promoted to enhance community resilience.

Creating and directing local community activities may be essential to collective well-being. To the extent that community members feel a sense of belonging, collective agency, in turn, will support personal agency. Ways of fostering this sense of local control include: community gatherings, community conversations, the collective sharing of feelings, relationships between younger generations and Elders, and language promotion. Community mobilization to address social concerns and collective control over health and other projects are also essential to enhancing identity and self-esteem.

Community empowerment aims to build the capacity within a community to meet challenges. It can do this across multiple domains through interventions that aim to: improve participation; develop local leadership; increase problem assessment capacities; increase critical awareness; build effective organizational structures; improve resource mobilization; strengthen links to other organizations and people; create an equitable relationship with outside agents; and increase local control over programme management (Bopp, 1999; Laverack, 2005). A review of programs in Australia and New Zealand aimed at increasing indigenous community empowerment identified the following factors associated with positive outcomes: community ownership of the problem and solution; the level of existing community empowerment in the local setting; the use of local facilitators; use of outside resource people; establishing trusting partnerships; a local coordinating group; and adequate resources (Campbell et al., 2007).

Kral and Idlout (2008) describe community-generated activities in two Nunavut communities just before each experienced a decrease in suicide activities. One such activity involved the regular gathering of community members over a period of time. Members of the group discussed



recent suicides, and identified their feelings, concerns and motivations about suicide and its prevention in the community. Kral and Idlout call this a space of “synchrony” in which group thoughts generated productive ideas. Similarly, an effective measure in the community of Igloolik involved the establishment of a Youth Committee which met every two weeks to discuss issues and ways to improve community life. Finally, another Igloolik group came together to produce a successful feature film (“Atanarjuat: The Fast Runner”). In light of their experience, Kral and Idlout emphasize that “it does not appear to matter so much what the project is as much as that program or initiative is the community’s own” (Kral & Idlout, 2008, p. 328).

Decentralized and collective power allows communities to determine their own health priorities and establish culturally appropriate programs. In urban centres, Clark (2006) has also found that the best mental health intervention programs depend on community ownership, along with consistent and effective leadership and a culture-focused approach.

Compared to local programs, interventions that are parachuted in from the outside are less likely to be successful in promoting community resilience because they do not build local capacity. Support for the development of local interventions will build local capacity and have broader effects on resilience. This support can include financial resources and expertise that is oriented toward facilitating local program development.

6.3 Supporting Families and Healthy Child Development

Building resilience may involve preventive measures that occur early in development. This can include support for parents and families with young children or early adolescents. Interventions that encourage positive parenting and intergenerational exchange within families are likely to foster community resiliency. This is especially the case given that the residential school system fragmented families and disrupted intergenerational relationships. Programs and services geared to the well-being of Aboriginal communities therefore must facilitate the importance of sharing and cooperation between generations.

Studies have found that Aboriginal youth tend to rely on cultural and social networks for help rather than professional resources. Efforts to target youth problems, such as violence, are therefore moving away from individual psychotherapy toward family and group interventions that incorporate community and cultural values (Clauss-Ehlers & Levi, 2002). Residential treatment programs also have

acknowledged that many protective factors can be best addressed through community and cultural involvement, for example by encouraging traditional Aboriginal teachings that promote morality, humour, creativity, initiative, relationships, independence, and insight (Dell, Dell & Hopkins, 2005). Policies and programs that foster stronger cultural identity by encouraging collective events for sharing Aboriginal history and expressions of cultural pride which are youth-oriented may be helpful interventions.

6.4 Building Social Capital, Networks and Support

Activities that enhance intra-community social cohesion and expand social networks may be very helpful in increasing social support. These include regular collective events such as powwows, educational events with Elders and sports events. Shared spaces where people can gather must be created and maintained; these may include community centers, religious or other community organizational settings, or recreational facilities. Other specific programs and services can be developed to bring people together over common concerns, for example, parenting programs. Given the respect for the wisdom of Elders in Aboriginal communities, such programs can facilitate sharing and cooperation across the generations.

Much research suggests that community resilience may be mediated by natural helping among community members (Waller & Patterson, 2002) and networks. These include organizations such as church support groups, veteran’s organizations, self-help groups, and sporting associations (Sonn & Fischer, 1998; Iwasaki, Bartlett, MacKay, MacTavish, & Ristock, 2005). Such community groups allow sharing of resources (both economic and emotional), and facilitate the propagation of collective systems of meaning that can increase community resiliency. The creation, perpetuation and expansion of such groups may increase social capital and social networks, and be a useful intervention for enhancing community resilience. This type of organization can be developed in both remote communities and in urban settings.

Interventions focused on developing internal links should be complemented by interventions that enhance extra-communal linkages, as this allows for communal empowerment and influence on wider society. Strengthening internal networks and building broader links among communities and across regions will contribute to the communities resilience. Political activities that allow the community to organize around common goals, for example, efforts to regulate regional development, can have a strong effect on the sense of cohesion and collective efficacy.



New media and forms of communication exert a strong influence on individual and community identity. The Internet allows individuals or groups to find others with whom they can form “virtual communities.” For people living in both urban and remote communities, this sense of belonging may buffer the effects of being marginalized in their local communities. Internet forums and websites can help bring people together and be used to efficiently advertise and announce relevant events and activities. As such, the internet can allow people to connect within their own community and also to people outside their community. It may enhance resilience through protective social networks. The internet also provides unique access to knowledge and learning opportunities. As such, increasing access and familiarity with the Internet for both individuals and community groups may close the “information gap” and ensure communities are well-equipped to take advantage of the social and educational opportunities offered by the internet.

6.5 Summary

A wide variety of interventions can enhance community resilience. Table 2 (next page) summarizes some key areas for intervention and examples of effective programs. Although divided by broad categories, most of these interventions overlap. For example, activities on the land involve affirming cultural identity, transmitting cultural knowledge, strengthening social networks and supports, and deepening spirituality. The implication is that there will be broad impact from any of these interventions and powerful synergies when more than one intervention occurs. Measurement of outcomes must therefore also be broad, since some of the positive effects of an intervention may occur in areas that were not its original focus.

While interventions sometimes have impressive short and medium term affects, recent research suggests that some interventions have a delayed impact, which can only be seen in terms of years. These include interventions to enhance parenting skills in order to prevent later suicidal and self-harm episodes among participants’ children. The study by Schiff and Moore (2006) of the effect of the sweatlodge ceremony measures differences in resilience pre- and post-ritual. Though they found a significant impact of ritual, they urge future studies to track effects over a longer period, and over multiple sites. It may also be beneficial to track effects over a sequence of sweatlodge ceremonies to see whether the benefits of resilience accumulate in an additive or synergistic manner. Indeed, it is often challenging to isolate complex, interacting variables over temporal frames. Certain processes of resilience may only apply at specific developmental stages.

7. DISCUSSION AND CONCLUSION

The concept of resilience holds special interest for Aboriginal communities because it focuses on strengths rather than weaknesses or stigmatizing descriptions. Resilience is a way to address the fact that despite historical and ongoing conditions of hardship, many Aboriginal cultures and communities have survived and even flourished. Conditions of adversity and risk have driven both individual and collective responses of healing, recovery and growth. As a result, many Aboriginal communities, families and individuals enjoy high levels of well-being and success in both local and mainstream settings. The resilience framework focuses attention on these positive outcomes, their underlying causes and implications for health promotion.

7.1 Resilience as a Goal

The concept of resilience includes an element of promise tied to larger frameworks of meaning and existence. The various factors that contribute to resilience are both means to achieve well-being and valuable goals in themselves. Sen (1993) has written about this from the perspective of promoting human potential or “capability.” Human capabilities are not just instrumental means to an end, but have a moral claim to be developed for their own sake. Movements for indigenous self-determination aim to create the sustainable conditions of autonomy, empowerment and the realization of capabilities for individuals and communities.

Resilience is important for its role as an “indicator” of mental health that assesses critical levels of health, well-being and productive activity in Aboriginal communities. Indicators make it easier to measure outcomes, allocate public resources and influence policy development (Crossman, 2008). The model of resilience and the corresponding choice of indicators directs attention to specific social processes with implications for policy and practice. As Luthar and Cicchetti (2000) have said: “the resilience framework serves to direct interventionists to empirical knowledge regarding the salience of particular vulnerability and protective processes within the context of specific adversities” (p. 860). In terms of group and community dynamics, resilience highlights the specific types of adversities, and specific types of strengths of various groups and communities.

Community resilience also has important implications for efforts to promote mental health in Aboriginal communities. Interventions to promote community resilience include: strengthening social capital, networks



and support; revitalizing language, culture and spirituality; supporting families and parents to insure healthy child development; enhancing local control and collective efficacy; building infrastructure (material, human and informational); increasing economic opportunity and diversification; and respecting individual and cultural diversity within the community.

Resilience is a broad and flexible concept, encompassing processes of risk and vulnerability, growth and transformation, culture and community, social structure and personality, and power and agency. Resilience brings together a wide array of interacting factors that are best understood in relation to each other. This integrative view is consistent with Aboriginal philosophies that recognize the physical, emotional, intellectual, and spiritual dimensions of experience as essential to a balanced life. The social or communal dimensions of this balance include: knowledge of language, history and tradition; cultural and collective identity; development of traditional skills or know-how; the maintenance of kinship and connection; and spirituality, expressed in part through respect for the environment and the natural world. Most of the models of resilience discussed in this review acknowledge these cultural and spiritual elements. At the same time, thinking about resilience requires that we remain attentive to the specific forms of adversity and suffering that have shaped contemporary life in Aboriginal communities.

7.2 Models and Measures of Community Resilience

The sources of community resilience distinctive to Aboriginal communities include: connections to family and community, which are structured according to indigenous concepts of interdependence and caregiving across the life cycle; oral tradition and storytelling which provide vehicles for the transmission of cultural knowledge and values, as well as adaptive strategies of humour, context-sensitive thinking and creative problem solving; connection to the land and the environment which are central to indigenous notions of personhood; healing traditions which provide paths for personal transformation and interpersonal conflict resolution; ceremony and spirituality which provide access to collective wisdom, awareness of the modest place of human beings in the world, and a sense of the connectedness of all beings; cultural knowledge and identity which connect the individual to a valorized history as First Peoples; cultural continuity which maintains a sense of the meaningful trajectories of each person from past through present to a future with hope and possibility; and collective agency and political activism which give individuals and groups

the tools to challenge the forces of oppression and to work actively to make their own future.

The concept of community resilience has important implications for efforts to promote mental health in Aboriginal communities. However, there are many approaches to community resilience and not all fit equally well with Aboriginal values or realities. A model that works well for some types of Aboriginal community may not capture essential aspects of another Aboriginal context. Aboriginal communities vary widely in size, demography, geographic location, history and culture, with consequences for both their internal dynamics and their interactions with the rest of society and with global systems. Many Aboriginal communities have undergone profound changes as a result of colonization, bureaucratic control and interactions with neighbouring communities and populations. Each model of resilience must be evaluated in terms of its relevance to a particular community's history, current situation and future development.

Social capital is a potentially useful concept for understanding resilience in Aboriginal communities. The literature on social capital offers potential models of the internal and external relationships of communities. It captures social elements such as sharing and reciprocity that are fundamental to Aboriginal perspectives (Mignone & O'Neil, 2005). However, social capital requires systematic rethinking to be applicable across different geographic settings and cultural contexts.

7.3 Holism and Systems Thinking

Resilience depends on complex interactions within systems, including physiological and psychological processes within an individual and social, economic and political interactions between individuals and their environment, or between a community and the surrounding ecosystem and the larger society. As a result, resilience can only be understood by considering systems in their ecological and social context. In the case of communities, resilience is determined both by dynamics and by structural issues influencing access to resources, political organization and collective efficacy.

Some of the structural problems faced by communities result from government policies and administrative practices, notably the segmentation of policies, programs and services that aim to address issues of mental health, substance abuse, social services, corrections, and other social problems that are all aspects of the same underlying social problems. This artificial separation of practices, professions, aggravated by conflicts over jurisdictions (Macdonald, 2008) has imposed wrecked havoc with Aboriginal communities. Government can play a useful role in facilitating community



Community: a group of people who live together or are connected through emotional bonds with each other and the group, shared connection to place, common interests, values, and activities and identities.

Community-level: factors that are properties of communities, for example, pollution, collective efficacy and generic trust.

Cross-sectional research: a study design where exposure and outcome variables are collected simultaneously.

Ecological Capital: a broader concept than social capital that encompasses four domains: natural capital (the surrounding biological ecosystem and environmental resources); human capital (skills, health, abilities, education, and the cultural values of community members); social capital (bonds between individuals as well as across wider voluntary or institutional networks and organization; and built capital (roads, homes, equipment, and other human-made structures).

Epidemiology: the scientific study of the distribution and determinants of health and illness in populations.

First Nation(s): an Aboriginal community that is recognized by Indian and Northern Affairs Canada (INAC) that typically has federal reserve land and registered membership defined by the Indian Act as status Indians. A First Nation community may also include other land and members.

Generalizability: the extent to which findings from a specific study sample can be generalized to either: (i) the local population (sometimes known as internal validity); or (ii) the population at large (sometimes known as external validity).

Incidence: the number of new cases of a health problem occurring in a population over a specific period of time (e.g. one month, 12 months).

Individual-level factors: factors that are properties of individuals, for example, age, gender and income.

Linking social capital: the degree of integration and social efficacy of groups within a hierarchical society

(including, for example, the relationship with various levels of government).

Longitudinal research: a study design where a cohort of people are followed-up over a specific period of time with exposure variables measured at baseline and outcome variables measured after a period of elapsed time.

Prevalence: the number of cases with a health problem in a population (usually expressed as a percentage of the total population; also sometimes specific in terms of a time period).

Protective factor: a factor that reduces the likelihood of developing a health problem.

Qualitative research: a research methodology which involves the collection of non-numerical data, mostly in the form of in-depth interviews, focus groups and participant observation.

Risk factor: a factor known to increase the possibility that an individual will develop a health problem.

Social capital is an umbrella term used to describe aspects of social networks, relations, trust and power, either as a function of the individual, or as a function of a geographical region (e.g. a First Nation community).

Social networks refer to the extent and nature of linkages between individuals.

Social support refers to individual-level instrumental and emotional support received by one individual from other individuals.

Structural violence refers to forms of violence that occur because of the way societies are structured to create and maintain inequalities, harmful and oppressive circumstances that cause illness and injury to people.

Vertical social capital: (see Linking social capital).



APPENDIX B. QUESTIONS FOR DISCUSSION

What are the dimensions of resilience at the level of the community? How do these differ from individual resilience factors?

What aspects of resilience identified in other communities apply to Aboriginal communities?

What are the unique or distinctive facets of resilience in Aboriginal communities?

What are the advantages and disadvantages of using social capital as a framework for understanding and measuring community resilience in Aboriginal communities?

Is social capital mainly a Eurocentric concept, or does it resonate with Aboriginal values and worldviews?

What does the concept of social capital omit that may be important in community resilience for Aboriginals?

Do different sizes, locations and organizations of communities require different models and measures of resilience?

What are the key dimensions of Aboriginal community resilience?

In practical terms, which factors are easiest to recognize, monitor or measure over time and across communities?

Which existing measures should be tailored to the Aboriginal perspectives? What form should this process of tailoring take?

What are the most feasible and effective methods to promote Aboriginal community resilience?

APPENDIX C. RESOURCES ON COMMUNITY RESILIENCE

Community Capacity Building – A Practical Guide
Prepared by Dr Rowland Atkinson and Paul Willis of the Housing and Community Research Unit, School of Sociology, University of Tasmania (2006) <http://www.utas.edu.au/sociology/HACRU/6%20Community%20Capacity%20building.pdf>

Building Resilience in Rural Communities Toolkit

The University of Queensland and University of Southern Queensland:

http://learningforsustainability.net/pubs/Building_Resilience_in_Rural_Communities_Toolkit.pdf

The National Disaster Recovery Principles

South Australian Government (2008)

<http://www.dfc.sa.gov.au/pub/default.aspx?tabid=196>

Community Builders NSW

an interactive electronic clearing house

<http://www.communitybuilders.nsw.gov.au/>

Assessing a community's capacity to manage change: A resilience approach to social assessment

Brigit Maguire and Sophie Cartwright, Bureau of Rural Sciences, May 2008

http://www.affashop.gov.au/PdfFiles/dewha_resilience_sa_report_final_4.pdf

The Community Resilience Manual: A resource for rural recovery & renewal

Canadian Centre for Community Renewal

<http://www.cedworks.com/communityresilience01.html>

Mental Health Foundation of Australia, Resiliency Resource

http://www.embracethefuture.org.au/resiliency/resiliency_model.htm

REFERENCES

Abel, T. & Stepp, J. R. (2003). A new ecosystems ecology for anthropology. *Conservation Ecology*, 7(3). Retrieved from <http://www.ecologyandsociety.org/vol7/iss3/art12/>

Adams, A. M., Madhavan, S. & Simon, D. (2005). Measuring social networks cross-culturally. *Social Networks*, 28(4), 363-376.

Adelson, N. (2000a). *Being Alive Well: Health and the Politics of Cree Well-Being*. Toronto: University of Toronto Press.

Adelson, N. (2000b). Re-imagining Aboriginality: An Indigenous peoples' response to social suffering. *Transcultural Psychiatry*, 37(1), 11-34.



- Bombay, A., Matheson, K. & Anisman, H. (in press). The impact of stressors on second generation Indian Residential School survivors. *Transcultural Psychiatry*.
- Bonanno, G. A. (2005). Resilience in the face of potential trauma. *Current Directions in Psychological Science*, *14*(3), 135-138.
- Bonanno, G. A., Moskowitz, J. T., Papa, A., & Folkman, S. (2005). Resilience to loss in bereaved spouses, bereaved parents, and bereaved gay men. *Journal of Personality and Social Psychology*, *88*(5), 827-843.
- Bopp, M., Germann, K., Bopp, J., Littlejohns, L. B., & Smith, N. (1999) *Assessing Community Capacity for Change*, Calgary: Four Worlds Development.
- Borré, K. (1991). Seal blood, Inuit blood, and diet: A bio-cultural model of physiological and cultural identity. *Medical Anthropology*, *5*, 48-62.
- Boss, P. (2006). *Loss, trauma, and resilience: Therapeutic work with ambiguous loss*. New York: Norton.
- Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education* (pp. 241-258). New York: Greenwood.
- Bowles, S. & Gintis, H. (2002). Social capital and community governance. *The Economic Journal*, *112*, F419-F436.
- Brass, G. M. (2008). Respecting the medicines: Narrating an Aboriginal identity. In L. J. Kirmayer & G. Valaskakis (Eds.), *Healing Traditions: The Mental Health of Aboriginal Peoples in Canada* (pp. 355-380). Vancouver: University of British Columbia Press.
- Brendtro, L., Brokenleg, M. & Van Bockern, S. (2001). *Reclaiming Youth at Risk: Our Hope for the Future*. Bloomington, IN: National Education Service.
- Breton, M. (2001). Neighborhood resiliency. *Journal of Community Practice*, *9*(1), 21-36.
- Brown, G. & Harris, T. (1978). *The Social Origins of Depression*. New York: The Free Press.
- Burack, J., Blidner, A., Flores, H., & Fitch, T. (2007). Constructions and deconstructions of risk, resilience and wellbeing: A model for understanding the development of Aboriginal adolescents. *Australasian Psychiatry*, *15*(Supplement).
- Burgess, C. P., Berry, H. L., Gunthorpe, W., & Bailie, R. S. (2009). Development and preliminary validation of the 'Caring for Country' questionnaire: Measurement of an Indigenous Australian health determinant. *International Journal for Equity in Health*, *7*.
- Caldwell, D. (2008). The suicide prevention continuum *Pimatisiwin: A Journal of Aboriginal and Indigenous Health*, *6*(2).
- Campbell, D., Pyett, P., McCarthy, L., Whiteside, M., & Tsey, K. (2007). Community development and empowerment—a review of interventions to improve Aboriginal health. In I. Anderson, F. Baum & M. Bentley (Eds.), *Beyond Band-aids: Exploring the Underlying Social Determinants of Aboriginal Health* (pp. 165-207). Casuarina, Australia: Cooperative Research Centre for Aboriginal Health.
- Canino, G., Lewis-Fernandez, R. & Bravo, M. (1997). Methodological challenges in cross-cultural mental health research. *Transcultural Psychiatry*, *34*(2), 163-184.
- Carlton, B. S., Goebert, D. A., Miyamoto, R. H., Andrade, N. N., Hishinuma, E. S., Makini, G. K., Jr., et al. (2006). Resilience, family adversity and well-being among Hawaiian and non-Hawaiian adolescents. *International Journal of Social Psychiatry*, *52*(4), 291-308.
- Carriere, J. (2007). Promising practice for maintaining identities in First Nation adoption. *First Peoples Child and Family Review*, *3*(1), 46-64.
- Chandler, M. J. (2000). Surviving time: The persistence of identity in this culture and that. *Culture and Psychology*, *6*(2), 209-231.
- Chandler, M. J. & Lalonde, C. E. (1998). Cultural continuity as a hedge against suicide in Canada's First Nations. *Transcultural Psychiatry*, *35*(2), 191-219.
- Chandler, M. J. & Lalonde, C. E. (2008). Cultural continuity as a moderator of suicide risk among Canada's First Nations. In L. J. Kirmayer & G. G. Valaskakis (Eds.), *Healing Traditions: The Mental Health of Aboriginal Peoples in Canada* (pp. 221-248). Vancouver: University of British Columbia
- Chandler, M. J., Lalonde, C. E., Sokol, B. W., & Hallett, D. (2003). Personal persistence, identity development, and suicide: a study of Native and Non-native North American adolescents. *Monographs of the Society for Research in Child Development*, *68*(2), vii-viii, 1-130; discussion 131-138.



- Charuvastra, A. & Cloitre, M. (2008). Social bonds and posttraumatic stress disorder. *Annual Review of Psychology*, 59, 301-328.
- Chen, X., Stanton, B., Gong, J., Fang, X., & Li, X. (2009). Personal Social Capital Scale: an instrument for health and behavioral research. *Health Education Research*, 24(2), 306-317.
- Christensen, J. A. & Robertson, J. A. (1980). *Community Development in America*. Iowa: Iowa State University Press.
- Clark, R. L. (2006). Healing the generations: Urban American Indians in recovery. In T. M. Witko (Ed.), *Mental Health Care for Urban Indians: Clinical Insights from Native Practitioners* (Vol. 83-100). Washington D.C.: American Psychological Association.
- Clauss-Ehlers, C. S. & Levi, L. L. (2002). Violence and community, terms in conflict: An ecological approach to resilience. *Journal of Social Distress & the Homeless*, 11(4), 265-278.
- Cohen, A. P. (1985). *The Symbolic Construction of Community*. London: Tavistock Publications.
- Colletta, N. & Cullen, M. (2000). *Violent conflict and the transformation of social capital: lessons from Cambodia, Rwanda, Guatemala and Somalia*. Washington, DC: World Bank.
- Connors, E. & Maidman, F. (2001). A circle of healing: Family wellness in Aboriginal communities. In I. Prillettensky, G. Nelson & L. Peiron (Eds.), *Promoting family wellness and preventing child maltreatment: Fundamentals for thinking and action* (pp. 349-416). Toronto, ON: University of Toronto Press.
- Connors, J. L. & Donnellan, A. M. (1998). Walk in beauty: western perspectives on disability and Navajo family/ cultural resilience. In H. I. McCubbin, E. A. Thompson, A. I. Thompson & J. E. Fromer (Eds.), *Resiliency in Native American and Immigrant families* (pp. 1159-1182). Thousand Oaks, CA: Sage Publications, Inc.
- Cook, S. J. (2005). Use of traditional Mi'kmaq medicine among patients at a First Nations community health centre. *Canadian Journal of Rural Medicine*, 10(2), 95-99.
- Cooke, M. (2005). *The First Nations Community Well-Being index (CWB): A conceptual review*. Strategic Research and Analysis Directorate, Indian and Northern Affairs Canada. Ottawa: Indian and Northern Affairs Canada.
- Cork, S. (Ed.). (2009). *Brighter Prospects: Enhancing the Resilience of Australia*. Western, ACT: Australia21.
- Cosgrove, D. (2000) Sense of place. In R. J. Johnston, D. Gregory, G. Pratt, M. Watts (Eds.) *The Dictionary of Human Geography*, 4th Ed. (pp. 731-734). Malden, MA: Blackwell Publishing.
- Cross, T. L. (1998). Understanding family resilience from a relational world view. In H. I. McCubbin, E. A. Thompson, A. I. Thompson, & J. E. Fromer (Eds.), *Resiliency in Native American and immigrant families* (pp. 143-157). Thousand Oaks, CA: Sage Publications, Inc.
- Crossman, D. (2008). *Mental Health as Social Capital: Changing Perceptions in Canada*. Ottawa: Canadian Institute for Health Information.
- De Silva, M. J., Harpham, T., Tuan, T., Bartolini, R., Penny, M. E., & Huttly, S. R. (2006). Psychometric and cognitive validation of a social capital measurement tool in Peru and Vietnam. *Social Science and Medicine*, 62(4), 941-953.
- Davidson, W. B. & Cotter, P. R. (1986). Measurement of sense of community within the sphere of city. *Journal of Applied Social Psychology*, 16(7), 608-619.
- Davis, R., Cook, D. & Cohen, L. (2005). A community resilience approach to reducing ethnic and racial disparities in health. *American Journal of Public Health* 95(12), 2168-2173.
- Dell, C. A., Dell, D. E. & Hopkins, C. (2005). Resiliency and holistic inhalant abuse treatment. *Journal of Aboriginal Health, March 2005*(7), 4-10.
- Denham, A. R. (2008). Rethinking historical trauma: Narratives of resilience. *Transcultural Psychiatry*, 45(3), 391-414.
- Derose, K. P. & Varda, D. M. (2009). Social capital and health care access: A systematic review. *Medical Care Research and Review*, 66(3), 272-306.
- Desjarlais, R., Eisenberg, L., Good, B., & Kleinman, A. (1995). *World Mental Health: Problems and Priorities in Low-Income Countries*. New York: Oxford University Press.
- Diez-Roux, A. (1998). Bringing context back into epidemiology: variables and fallacies in multi-level analysis. *American Journal of Public Health* 88, 216-222.



- Dion, S. D. (2009). *Braiding Histories: Learning from Aboriginal Peoples' Experiences and Perspectives*. Vancouver: University of British Columbia Press.
- Duhaime, G., Searles, E., Usher, P. J., Myers, H., & Fr chet te, P. (2004). Social cohesion and living conditions in the Canadian arctic: From theory to measurement. *Social Indicators Research*, 66(3), 295-318.
- Duran, E., Duran, B., Braveheart, M. Y. H., & Yellow-Horse-Davis (1998). Healing the American Indian soul wound. In Y. Danieli (Ed.), *International handbook of multigenerational legacies of trauma*. New York: Plenum.
- Dyson, L. E., Hendriks, M. A. N. & Grant, S. (2007). *Information technology and indigenous people*. Hershey, PA: Information Science Pub. (an imprint of Idea Group Inc.).
- Edmondson, R. (2003). Social capital: A strategy for enhancing health? *Social Science & Medicine*, 57, 1723-1733.
- Ellis, B. H., Jr. (2003). Mobilizing communities to reduce substance abuse in Indian country. *Journal of Psychoactive Drugs*, 35(1), 89-96.
- Farmer, P. (2003). *Pathologies of power: Health, human rights, and the new war on the poor*. Berkeley: University of California Press.
- Feit, H. A. (2004). James Bay Crees' life projects and politics: Histories of place, animal partners and enduring relationships. In M. Blaser, H. A. Feit & G. McRae (Eds.), *In the Way of Development: Indigenous Peoples, Life Projects and Globalization* (pp. 92-110). London: Zed Books.
- Ferlander, S. (2007). The importance of different forms of social capital for health. *Acta Sociologica* 50(2), 115-128.
- Fleming, J. & Ledogar, R. (2008a). Resilience, an evolving concept: A review of literature relevant to Aboriginal research. *Pimatisiwin*, 6(2), 7-24.
- Fleming, J. & Ledogar, R. (2008b). Resilience and indigenous spirituality: A literature review. *Pimatisiwin*, 6(2), 47-64.
- Fuller-Thomson, E. (2005). Canadian First Nations grandparents raising grandchildren: a portrait in resilience. *International Journal of Aging & Human Development*, 60(4), 331-342.
- Furukawa, T. A., Kessler, R. C., Slade, T., & Andrews, G. (2003). The performance of the K6 and K10 screening scales for psychological distress in the Australian National Survey of Mental Health and Well-Being. *Psychological Medicine*, 33(2), 357-362.
- Galtung, J. G. (1986). Violence, peace and peace research. *Journal of Peace Research*, 6(3), 167-191.
- Garnezy, N. (1991). Resiliency and vulnerability to adverse developmental outcomes associated with poverty. *American Behavioural Scientist*, 34(4), 416-430.
- Garroutte, E. M., Goldberg, J., Beals, J., Herrell, R., Manson, S. M., & AI-SUPERFP Team (2003). Spirituality and attempted suicide among American Indians. *Social Science & Medicine*, 56(7), 1571-1579.
- Gesler, W.M. & Kearns, R.A. (2002). *Culture, place and health*. New York, NY: Routledge.
- Gone, J. P. (2006). Mental health, wellness, and the quest for an authentic American Indian identity. In T. M. Witko (Ed.), *Mental health care for urban Indians: Clinical insights from Native practitioners* (pp. 55-80). Washington, DC: American Psychological Association.
- Gone, J. P. (2007). "We never was happy living like a Whiteman": mental health disparities and the postcolonial predicament in American Indian communities. *American Journal of Community Psychology*, 40(3-4), 290-300.
- Gone, J. (2008). 'So I can be like a whiteman': The cultural psychology of space and place in American Indian mental health. *Culture & Psychology*, 14, 369-399.
- Gone, J. P. (2009). A community-based treatment for Native American historical trauma: prospects for evidence-based practice. *Journal of Consulting and Clinical Psychology*, 77(4), 751-762.
- Granovetter, M. G. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360-1380.
- Grootaert, C., Narayan, D., Jones, V. N., & Woolcock, M. (2003). *Integrated Questionnaire for the Measurement of Social Capital (SC-IQ)*: The World Bank.
- Gross, L. W. (2002). *Bimmaadiziwin*, or the 'Good Life,' as a unifying concept of Anishinaabe religion. *American Indian Culture and Research Journal*, 26(1), 15-32.



- Gruber, E. (2008). Humorous restorifications: Rewriting history with healing laughter. In K. Knopf (Ed.), *Aboriginal Canada Revisited* (pp. 220-245). Ottawa: University of Ottawa Press.
- Gurwitsch, R. H., Pfefferbaum, B., Montgomery, J. M., Klomp, R. W., & Reissman, D. B. (2007). *Building Community Resilience for Children and Families*. Oklahoma City: Terrorism and Disaster Center at the University of Oklahoma.
- Hallett, D., Chandler, M. J. & Lalonde, C. E. (2007). Aboriginal language knowledge and youth suicide. *Cognitive Development, 22*, 393-399.
- Hammack, P. L., Richards, M. H., Luo, Z., Edlynn, E. S., & Roy, K. (2004). Social support factors as moderators of community violence exposure among inner-city African American young adolescents. *Journal of Clinical Child & Adolescent Psychology, 33*(3), 450-462.
- Harpham, T., Grant, E. & Thomas, E. (2002). Measuring social capital within health surveys: key issues. *Health Policy and Planning, 17*(1), 106-111.
- Harrison, K. D. (2007). *When languages die: the extinction of the world's languages and the erosion of human knowledge*. New York: Oxford University Press.
- Hart, M. (1998). *Sustainable Community Indicator Trainer's Workshop*. North Andover, MA: Hart Environmental Data.
- Healey, S. (2006). *Cultural resilience, identity and the restructuring of political power in Bolivia*. Paper Submitted for the 11th Biennial Conference of the International Association for the Study of Common Property, Bali, Indonesia June 19-23, 2006.
- HeavyRunner, I. & Marshall, K. (2003). Miracle survivors: Promoting resilience in Indian students. *Tribal College Journal, 14*(4), 14.
- HeavyRunner, I. & Morris, J. S. (1997). Traditional Native culture and resilience. *Research/Practice Newsletter, 5*. Retrieved from: <http://cehd.umn.edu/carei/Reports/Rpractice/Spring97/traditional.html>
- Hegney, D., Ross, H., Baker P., Rogers-Clark, C., King, C., Buikstra, E., et al. (2008). *Building Resilience in Rural Communities*. Toowoomba, Queensland: University of Queensland & University of Southern Queensland.
- Henderson, S. & Whiteford, H. (2003). Social capital and mental health. *The Lancet, 362*, 505-506.
- Hill, D. L. (2006). Sense of belonging as connectedness, American Indian worldview, and mental health. *Archives of Psychiatric Nursing, 20*(5), 210-216.
- Holling, C.S. (2001). Understanding the complexity of economic, ecological, and social systems. *Ecosystems, 4*, 390-405.
- Holton, T.L., Brass, G. M. & Kirmayer, L. J. (2009). The discourses of resilience, 'enculturation' and identity in Aboriginal mental health research. In T. Teo, P. Stenner, A. Rutherford, E. Park, & C. Baerveldt (Eds.), *Varieties of theoretical psychology: International philosophical and practical concerns* (pp. 194-204). Concord, ON: Captus.
- Hudson-Rodd, N. (1998). Nineteenth century Canada: indigenous place of dis-ease. *Health & Place, 4*(1), 55-66.
- Iarocci, G., Root, R. & Burack, J. A. (2008). Social competence and mental health among Aboriginal youth: An integrative developmental perspective. In L. J. Kirmayer & G. Valaskakis (Eds.), *Healing Traditions: The Mental Health of Aboriginal Peoples in Canada* (pp. 80-106). Vancouver: University of British Columbia Press.
- Isaac, C. (2009) *Seeking Solace: A Meta-Synthesis of the Relationship between Place, Cultural Continuity, and Aboriginal Youth Suicide in Ontario First Nations*. Unpublished Honours B.A. Thesis, Geography and Indigenous Studies, Trent University, Peterborough, Ontario, Canada.
- Iwasaki, Y. & Bartlett, J. G. (2006). Culturally meaningful leisure as a way of coping with stress among aboriginal individuals with diabetes. *Journal of Leisure Research, 38*(3), 321-338.
- Iwasaki, Y., Bartlett, J., McKay, K., Mactavish, J. & Ristock, J. (2005). Social exclusion and resilience as frameworks of stress and coping among selected non-dominant groups. *International Journal of Mental Health Promotion, 7*, 4-17.
- Jewkes, R. & Murcott, A. (1996). Meanings of community. *Social Science and Medicine, 43*(4), 555-563.
- Johnson, K., Grossman, W. & Cassidy, A. (1996). *Collaborating to improve community health: workbook and guide to best practices in creating healthier communities and populations*. San Francisco: Jossey-Bass Publishers.



- Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework. *Journal of Environmental Psychology*, 15, 169-182.
- Kawachi, I. & Berkman, L. F. (2001). Social ties and mental health. *Journal of Urban Health*, 78(3), 458-467.
- Kim, H.S., Sherman, D. K. & Taylor, S. E. (2008). Culture and social support. *American Psychologist*, 63(6), 518-526.
- Kim-Cohen, J., Moffitt, T. E., Caspi, A., & Taylor, A. (2004). Genetic and environmental processes in young children's resilience and vulnerability to socioeconomic deprivation. *Child Development*, 75(3), 651-668.
- King, T. (2003). *The truth about stories: a native narrative*. Toronto: House of Anansi Press.
- Kirmayer, L. J. (2007). Psychotherapy and the cultural concept of the person. *Transcultural Psychiatry*, 44(2), 232-257.
- Kirmayer, L. J., Boothroyd, L. J., Tanner, A., Adelson, N., Robinson, E., & Oblin, C. (2003). Psychological distress among the Cree of James Bay. In P. Boss (Ed.), *Family Stress: Classic and Contemporary Readings* (pp. 249-264). Thousand Oaks, CA: Sage.
- Kirmayer, L. J., Brass, G. M., Holton, T. L., Paul, K., Simpson, C., & Tait, C. L. (2007). *Suicide Among Aboriginal Peoples in Canada*. Ottawa: Aboriginal Healing Foundation.
- Kirmayer, L. J., Brass, G. M. & Tait, C. L. (2000). The mental health of Aboriginal peoples: transformations of identity and community. *Canadian Journal of Psychiatry*, 45(7), 607-616.
- Kirmayer, L. J., Brass, G. M. & Valaskakis, G. G. (2008b). Conclusion: Healing / Invention / Tradition. In L. J. Kirmayer & G. Valaskakis (Eds.), *Healing Traditions: The Mental Health of Aboriginal Peoples in Canada* (pp. 440-472). Vancouver: University of British Columbia Press.
- Kirmayer, L., Fletcher, C., Corin, E., & Boothroyd, L. (1994). Inuit concepts of mental health and illness: An ethnographic study. Working paper no. 4. Montreal, QC: Culture and Mental Health Research Unit, Department of Psychiatry, Sir Mortimer B. Davis - Jewish General Hospital.
- Kirmayer, L. J., Fletcher, C. & Watt, R. (2008a) Locating the ecocentric self: Inuit concepts of mental health and illness. In L. J. Kirmayer & G. Valaskakis (Eds.), *Healing Traditions: The Mental Health of Aboriginal Peoples in Canada* (pp. 289-314). Vancouver: University of British Columbia Press.
- Kleinman, A. M. (1977). Depression, somatization and the "new cross-cultural psychiatry". *Social Science and Medicine*, 11, 3-10.
- Koenig, H. G. (2008). Concerns about measuring "spirituality" in research. *Journal of Nervous and Mental Disease*, 196(5), 349-355.
- Koenig, H. G. (2009). Research on religion, spirituality, and mental health: a review. *Canadian Journal of Psychiatry*, 54(5), 283-291.
- Konner, M. (2007). Trauma, adaptation, and resilience: A cross-cultural and evolutionary perspective. In L. J. Kirmayer, R. Lemelson & M. Barad (Eds.), *Understanding Trauma: Biological, Psychological and Cultural Perspectives* (pp. 300-338). New York: Cambridge University Press.
- Kral, M. J. & Idlout, L. (2008). Community wellness and social action in the Canadian arctic: Collective agency as subjective well-being. In L. J. Kirmayer & G. G. Valaskakis (Eds.), *Healing Traditions: The Mental Health of Aboriginal Peoples in Canada* (pp. 315-334). Vancouver: University of British Columbia.
- LaBoucane-Benson, P. (2005). *A complex ecological framework of aboriginal family resilience*. Paper presented at the First Nations - First thoughts, Centre of Canadian studies 30th anniversary conference, University of Edinburgh, May 5 2005.
- LaFrance, J., Bodor, R. & Bastien, B. (2008). Synchronicity or serendipity? Aboriginal wisdom and childhood resilience. In L. Liebenbert & M. Unger (Eds.), *Resilience in Action*. Toronto: University of Toronto Press.
- LaFromboise, T. D., Hoyt, D. R., Oliver, L., & Whitbeck, L. B. (2006). Family, community, and school influences on resilience among American Indian adolescents in the upper midwest. *Journal of Community Psychology*, 34(2), 193-209.
- Lafromboise, T. D. & Lewis, H. A. (2008). The Zuni Life Skills Development Program: a school/community-based suicide prevention intervention. *Suicide & Life Threatening Behavior*, 38(3), 343-353.



- McCubbin, L. D., & McCubbin, H. I. (2005). Culture and ethnic identity in family resilience: Dynamic processes in trauma and transformation of Indigenous people. In M. Ungar (Ed.), *Handbook for Working with Children and Youth* (pp. 27-44). Thousand Oaks, London, New Delhi: Sage Publications.
- McEwen, B. S. (1998). Stress, adaptation, and disease. Allostasis and allostatic load. *Annals of the New York Academy of Sciences*, 840, 33-44.
- McEwen, B. S. (2003). Interacting mediators of allostasis and allostatic load: Towards an understanding of resilience in aging. *Metabolism: Clinical & Experimental*, 52(10 Suppl 2), 10-16.
- McGregor, D. (2004). Traditional ecological knowledge and sustainable development: Towards coexistence. In M. Blaser, H. A. Feit & G. McRae (Eds.), *In the Way of Development: Indigenous Peoples, Life Projects and Globalization* (pp. 72-91). London: Zed Books.
- McHardy, M. & O' Sullivan, E. (2004). *First Nations community well-being in Canada: The Community Well-Being index (CWB), 2001*. Strategic Research and Analysis Directorate, Indian and Northern Affairs Canada. Ottawa: Indian and Northern Affairs Canada.
- McKay, S. & Prokop, S. (2007). Identity, community, resilience: The Transmission of Values Project. In I. Brown, F. Chaze, D. Fuchs, J. Lafrance, S. McKay, & S. Prokop (Eds.), *Putting a human face on child welfare: Voices from the Prairies* (pp. 25-57). Regina: Prairie Child Welfare Consortium.
- Mignone, J. (2003). *Measuring social capital: A guide for First Nations communities*. Ottawa, ON: Canadian Institute for Health Information.
- Mignone, J. & O'Neil, J. (2005a). Social capital and youth suicide risk factors in First Nations communities. *Canadian Journal of Public Health*, 96 Suppl 1, S51-54.
- Mignone, J. & O'Neil, J. (2005b). Conceptual understanding of social capital in First Nations communities: An illustrative description. *Pimatisiwin*, 3(2), 7-44.
- National Aboriginal Health Organization (2006). *Suicide prevention: Inuit traditional practices that encouraged resilience and coping*. Ottawa: Ajunnginiq Centre, NAHO.
- Niezen, R. (2003). *The origins of indigenism: human rights and the politics of identity*. Berkeley: University of California Press.
- Niezen, R. (2005). *A world beyond difference: cultural identity in the age of globalization*. Malden, MA: Blackwell Pub.
- Norris, F. H. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*, 41(1-2), 127-150.
- Odum, E. P. & Barrett, G. W. (2005). *Fundamentals of ecology* (5th ed.). Belmont, CA: Thomson Brooks/Cole.
- Odum, H. T. (1994). *Ecological and general systems: an introduction to systems ecology* (Rev. ed.). Niwot, Colo.: University Press of Colorado.
- O'Neill, P. (2005). The ethics of problem definition. *Canadian Psychology*, 46, 13-20.
- O'Sullivan, E. (2006). *The Community Well-Being index (CWB): Well-being in First Nations communities, 1981-2001 and into the future*. Strategic Research and Analysis Directorate, Indian and Northern Affairs Canada. Ottawa: Indian and Northern Affairs Canada.
- Onyx, J. & Bullen, P. (2000). Measuring social capital in five communities. *Journal of Applied Behavioral Science*, 36(1), 23-42.
- Panelli, R. & Tipa, G. (2007). Placing well-being: a Maori case study of cultural and environmental specificity. *EcoHealth* 4, 445-460.
- Patterson, J. M. (2002). Understanding family resilience. *Journal of Clinical Psychology*, 58(3), 233-246.
- Perez, J. E. (2008). *Spirituality in Mentally Healthy Communities*. Ottawa: Canadian Institute for Health Information.
- Pilgrim, S., Samson, C. & Pretty, J. (2009). *Rebuilding Lost Connections: How Revitalization Projects Contribute to Cultural Continuity and Improve the Environment*. Interdisciplinary Centre for Environment and Society Occasional Paper 2009-01. Colchester, UK: University of Essex.
- Piselli, F. (2007). Communities, places, and social networks. *American Behavioral Scientist*, 50(7), 867-878.
- Plickert, G., Côté, R. R. & Wellman, B. (2007). It's not who you know, it's how you know them: Who exchanges what with whom? *Social Networks*, 29(3), 405-429.



- Polk, L. (1997). Toward a middle-range theory of resilience. *Advances in Nursing Science, 19*(3), 1-13.
- Putnam, R. (1993). *Making democracy work: civic traditions in modern Italy*. Princeton, NJ: Princeton University Press.
- Putnam, R. (2000). *Bowling alone: the collapse and revival of American community*. New York: Simon & Schuster.
- Reynolds, W. R., Quevillon, R. P., Boyd, B., & Mackey, D. (2006). Initial development of a cultural values and beliefs scale among Dakota/Nakota/Lakota People: A pilot study. *American Indian & Alaska Native Mental Health Research, 13*(3), 70-93.
- Richardson, G. E. (2002). The metatheory of resilience and resiliency. *Journal of Clinical Psychology, 58*(3), 307-321.
- Richman, J. & Fraser, M. (2001). *Resilience in childhood: The role of risk and protection*. Westport, CT: Praeger.
- Richmond, C. (2007). Narratives of social support and health in Aboriginal communities. *Canadian Journal of Public Health, 98*, 347-351.
- Richmond, C., Elliot, S., Matthews, R., & Elliot, B. (2004). The political ecology of health: Perceptions of environment, economy, health and well-being among 'Namgis First Nations'. *Health & Place, 11*, 349-365.
- Richmond, C. A., Ross, N. A. & Egeland, G. M. (2007). Social support and thriving health: a new approach to understanding the health of indigenous Canadians. *American Journal of Public Health, 97*(10), 1827-1833.
- Robards, M. & Alessa, L. (2004). Timescapes of community resilience and vulnerability in the circumpolar North. *Arctic, 57*(4), 415-427.
- Rolfé, R. E. (2006). *Social cohesion and community resilience: A multi-disciplinary review of literature for rural health research*. Halifax: Saint Mary's University.
- Rousseau, C. & Measham, T. (2007). Posttraumatic suffering as a source of transformation: A clinical perspective. In L. J. Kirmayer, R. Lemelson & M. Barad (Eds.), *Understanding Trauma: Biological, Psychological and Cultural Perspectives* (pp. 275-294). New York: Cambridge University Press.
- Rutter, M. (1985). Resilience in the face of adversity: Protective factors and resistance to psychiatric disorder. *British Journal of Psychiatry, 147*, 598-611.
- Rutter, M. (2001). Psychosocial adversity: Risk, resilience and recovery. In J. M. Richman & M. W. Fraser (Eds.), *The Context of Youth Violence: Resilience, Risk, and Protection* (pp. 13-41). Westport, CT: Praeger.
- Rutter, M. (2007). Resilience, competence, and coping. *Child Abuse & Neglect, 31*(3), 205-209.
- Sampson, R., Raudenbush, S. & Earls, F. (1997). Neighborhoods and violent crime: a multilevel study of collective efficacy. *Science, 277*, 918-924.
- Samson, C. (2008). A colonial double-bind: Social and historical contexts of Innu mental health. In L. J. Kirmayer & G. G. Valaskakis (Eds.), *Healing Traditions* (pp. 109-139). Vancouver: University of British Columbia
- Sanders, M. R., Turner, K. M. & Markie-Dadds, C. (2002). The development and dissemination of the Triple P-Positive Parenting Program: a multilevel, evidence-based system of parenting and family support. *Prevention Science, 3*(3), 173-189.
- Schiff, J. W. & Moore, K. (2006). The impact of sweat lodge ceremony on dimensions of well-being. *American Indian & Alaska Native Mental Health Research, 13*(3), 48-69.
- Sen, A. (1993). Capability and well-being. In M. Nussbaum & A. Sen (Eds.), *The Quality of Life* (pp. 30-53). Oxford: Clarendon Press.
- Serbin, L. A. & Karp, J. (2004). The intergenerational transfer of psychosocial risk: Mediators of vulnerability and resilience. *Annual Review of Psychology, 55*, 333-363.
- Silmere, H. & Stiffman, A. R. (2006). Factors associated with successful functioning in American Indian youths. *American Indian & Alaska Native Mental Health Research, 13*(3), 23-47.
- Sinclair, V. G. & Wallston, K. A. (2004). The development and psychometric evaluation of the Brief Resilient Coping Scale. *Assessment, 11*(1), 94-101.
- Sissons, J. (2005). *First Peoples: Indigenous Cultures and Their Futures*. London: Reaktion Books.



- Smith, C. & Ward, G. K. (2000). *Indigenous cultures in an interconnected world*. Vancouver: UBC Press.
- Smylie, J. & Anderson, M. (2006). Understanding the health of Indigenous peoples in Canada: key methodological and conceptual challenges. *Canadian Medical Association Journal*, 175(6), 602.
- Smylie, J., Anderson, I., Ratima, M., Crengle, S., & Anderson, M. (2006). Indigenous health performance measurement systems in Canada, Australia, and New Zealand. *Lancet*, 367(9527), 2029-2031.
- Somervell, P. D., Beals, J., Kinzie, J. D., Boehnlein, J., Leung, P., & Manson, S. M. (1992). Use of the CES-D in an American Indian village. *Culture, Medicine and Psychiatry*, 16(4), 503-517.
- Sonn, C. C. & Fisher, A. T. (1998). Sense of community: Community resilient responses to oppression and change. *Journal of Community Psychology*, 26(5), 457-472.
- Spoth, R., Greenberg, M., Bierman, K., & Redmond, C. (2004). PROSPER Community-University Partnership Model for Public Education Systems: Capacity-building for evidence-based, competence-building prevention. *Prevention Science*, 5(1), 31-39.
- Stairs, A. & Wenzel, G. (1992). "I am I and the environment": Inuit hunting, community and identity. *Journal of Indigenous Studies*, 3(2), 1-12.
- Stone, R. A., Whitbeck, L. B., Chen, X., Johnson, K., & Olson, D.M. (2006). Traditional practices, traditional spirituality, and alcohol cessation among American Indians. *Journal of Studies of Alcohol*, 67(2), 236-244.
- Stout, M. D. & Kipling, G. (2003). *Aboriginal people, resilience and the residential school legacy*. Ottawa: Aboriginal Healing Foundation.
- Strand, J. A. & Peacock, R. (2003). Resource guide: Cultural resilience. *Tribal College Journal*, 14(4), 28-31.
- Strand, J. A. & Peacock, T. D. (2002). Nurturing resilience and school success in American Indian and Alaska Native students. *EPIC Digest*. Retrieved from: http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/29/d2/8a.pdf
- Strickland, C. J., Walsh, E. & Cooper, M. (2006). Healing fractured families: Parents' and elders' perspectives on the impact of colonisation and youth suicide prevention in a Pacific northwest American Indian tribe. *Journal of Transcultural Nursing* 17, 5-12.
- Tanner, A. (1979). *Bringing home animals: Religious ideology and mode of production of the Mistassini Cree hunters*. New York: St. Martin's Press.
- Tanner, A. (2004). The cosmology of nature, cultural divergence, and the metaphysics of community healing. In J. Clammer, S. Poirier & E. Schwimmer (Eds.), *Figured Worlds: Ontological Obstacles in Intercultural Relations* (pp. 189-222). Toronto: University of Toronto Press.
- Tanner, A. (2008). The origins of northern Aboriginal social pathologies and the Quebec Cree healing movement. In L. J. Kirmayer & G. G. Valaskakis (Eds.), *Healing Traditions: The Mental Health of Aboriginal Peoples in Canada* (pp. 249-271). Vancouver: University of British Columbia.
- Tedeschi, R. G. & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15(1), 1-18.
- Therrien, M. (1987). *Le corps Inuit*. Paris: SELAF.
- Trosper, R. L. (2003). Resilience in pre-contact Pacific Northwest social ecological systems. *Conservation Ecology*, 7(3), 6.
- Uchino, B. N., Cacioppo, J. T. & Kiecolt-Glaser, J. (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin*, 119(3), 488-531.
- Ungar, M. (2004). The importance of parents and other caregivers to the resilience of high-risk adolescents. *Family Process*, 43(1), 23-41.
- Ungar, M. (2006). Nurturing hidden resilience in at-risk youth in different cultures. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, 15(2), 53-58.
- Ungar, M. (2008). Resilience across cultures. *British Journal of Social Work*, 38, 218-235.
- Ungar, M., Brown, M., Liebenberg, L., Othman, R., Kwong, W. M., Armstrong, M., et al. (2007). Unique pathways to resilience across cultures. *Adolescence* 42(166), 287-310.



- Ungar, M., Clark, S. E., Kwong, W.-M., Makhnach, A., & Cameron, C. A. (2005). Studying resilience across cultures. *Journal of Ethnic & Cultural Diversity in Social Work, 14*(3-4), 1-19.
- Uphoff, N. (Ed.). (2000). *Understanding social capital: learning from the analysis and experience of participation*. Washington, DC: World Bank.
- Van Uchelen, C. (2000). Individualism, collectivism, and community psychology. In J. Rappaport & E. Seidman (Eds.), *Handbook of Community Psychology*. New York: Kluwer Academic/Plenum Publishers.
- Vizenor, G. (1999). *Manifest Manners: Narratives on Postindian Survivance*. Lincoln: University of Nebraska Press.
- von Kemenade, S. (2003a). *Social Capital as a Health Determinant How is it Defined?* Ottawa: Health Canada.
- von Kemenade, S. (2003b). *Social Capital as a Health Determinant How is it Measured?* Ottawa: Health Canada.
- Waldram, J. B. (1997). *The Way of the Pipe: Aboriginal Spirituality and Symbolic Healing in Canadian Prisons*. Peterborough, ON: Broadview Press.
- Waldram, J. B. (Ed.). (2008). *Aboriginal Healing in Canada: Studies in Therapeutic Meaning and Practice*. Ottawa: Aboriginal Healing Foundation.
- Waldram, J. B., Herring, A. & Young, T. K. (2006). *Aboriginal health in Canada: Historical, cultural, and epidemiological perspectives* (2nd ed.). Toronto: University of Toronto Press.
- Waller, M. A. (2001). Resilience in ecosystemic context: Evolution of the concept. *American Journal of Orthopsychiatry 71*(3), 290-297.
- Waller, M. A., Okamoto, S. K., Hankerson, A. A., Hibbeler, T., Hibbeler, P., McIntyre, P., et al. (2002). The hoop of learning: A holistic, multisystemic model for facilitating educational resilience among Indigenous students. *Journal of Sociology & Social Welfare, 29*(1), 97-116.
- Waller, M. A., Okamoto, S. K., Miles, B. W., & Hurdle, D. E. (2003). Resiliency factors related to substance use/resistance: Perceptions of native adolescents of the Southwest. *Journal of Sociology & Social Welfare, 30*(4), 79-94.
- Waller, M. A. & Patterson, S. (2002). Natural helping and resilience in a Dine (Navajo) community. *Families in Society, 83*(1), 73-84.
- Walsh, F. (2006). *Strengthening Family Resilience* (2 ed.). New York: The Guilford Press.
- Walters, K. L. & Simoni, J. M. (2002). Reconceptualizing Native women's health: An "indigenist" stress-coping model. *American Journal of Public Health, 92*(4), 520-524.
- Warry, W. (1998). *Unfinished Dreams: Community Healing and the Reality of Aboriginal Self-Government*. Toronto: University of Toronto.
- Wexler, L. (2006). Inupiat youth suicide and culture loss: Changing community conversations for prevention. *Social Science & Medicine, 63*, 2938-2948.
- Whitbeck, L. B., Adams, G. W., Hoyt, D. R., & Chen, X. (2004). Conceptualizing and measuring historical trauma among American Indian people. *American Journal of Community Psychology, 33*(3), 119-130.
- Whitbeck, L. B., Chen, X., Hoyt, D. R., & Adams, G. W. (2004). Discrimination, historical loss and enculturation: Culturally specific risk and resiliency factors for alcohol abuse among American Indians. *Journal of Studies on Alcohol, 65*(4), 409-418.
- White, J. P. & Maxim, P. (2007). *Community Well-Being: A comparable communities analysis*. Strategic Research and Analysis Directorate, Indian and Northern Affairs Canada. Ottawa: Indian and Northern Affairs Canada.
- Whitley, R. & McKenzie, K. (2005). Social capital and psychiatry: Review of the literature. *Harvard Review of Psychiatry, 13*, 71-84.
- Wilkinson, R. G. (2005). *The Impact of Inequality*. New York: The New Press.
- Wilkinson, R. G. & Pickett, R. (2009). *The Spirit Level: Why More Equal Societies Almost Always Do Better*. London: Penguin.
- Wilkinson, R. & Marmot, M. (2003). *Social Determinants of Health: The Solid Facts*. Geneva: World Health Organization.



