The Eight *Ujarait* (Rocks) Model: Supporting Inuit Adolescent Mental Health With an Intervention Model Based on Inuit Knowledge and Ways of Knowing

Abstract

Objective: This study responded to a community-identified need to form an evidence base for interventions to promote mental health and wellness among youth in Nunavut. Methods: A literature review was conducted using the terms adolescence and Inuit and intervention or program or camp or land-based. PubMed and Google Scholar databases were used to find peerreviewed and grey literature on community-based youth programs. The literature review was presented to parents, elders, and youth for discussion over several months in 2009-2010. **Results:** Key themes included: self-esteem, physical activity, stress and coping, positive peer relationships, Inuit identity, mental health and well-being, and the effects of intergenerational trauma on youth in Nunavut. Themes were incorporated into a model for youth mental health interventions based on Inuit terminology, philosophy, and societal values—the Eight Ujarait/Rocks Model. The model was implemented as a camp program in 6 pilots in 5 communities from 2011 to 2013. Data were collected before and after the camp. Results indicated that the program fostered physical, mental, emotional, and spiritual wellness among youth. Parent observations of participants included an improvement in behaviour and attitude, strong cultural pride, greater confidence in identity, and improved family and community relationships. *Conclusion:* Evidence-based, community-driven models for youth mental health interventions in the North hold promise. The application of one such model through a camp program had a lasting impact on the individuals involved, beyond their immediate participation. Long-term monitoring of the participants, and ongoing evaluations of camps as they continue to unfold across Nunavut, are needed to contribute to the robust evidence base for this program over time.

Keywords

Inuit, youth, adolescents, mental health, evidence-based, holistic, land-based interventions, public health, Indigenous

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Introduction

Mental health and wellness is one of the most pressing issues identified by community members and organizations in Nunavut today (Ajunnginiq Centre, 2006; Healey, 2007; Hicks, 2007; Kirmayer, Tait, & Simpson, 2009; Nunavut Tunngavik, 2011; Tierney, 2007). In the 2007–2008 Inuit Health Survey, 48% of respondents reported having thought seriously about suicide at some point in their lives, and 14% of respondents reported recent suicidal ideation (Galloway & Saudny, 2012). Rates of attempted suicide in Nunavut are extremely high. Twentynine percent of respondents reported a nonfatal suicide attempt at some point in their lives, and 5% of all Nunavut respondents reported a recent nonfatal suicide attempt (Galloway & Saudny, 2012). Younger Nunavut adults (18–49 years) reported more recent suicide attempts than older people. Reports of suicidal thoughts and suicide attempts were more common among women than men (Galloway & Saudny, 2012).

In 2011, 50% of Nunavut's population were under the age of 24 (Nunavut Bureau of Statistics, 2011). The large, growing population of youth, and concerns about the mental health of young Nunavummiut¹, prompted a series of studies and public engagement sessions about

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¹ *Nunavummiut* is the Inuktitut term for the people of Nunavut.

mental health programs and services in 2009 and 2010 (Mearns, 2013; Nunavut Tunngavik, 2011; Qaujigiartiit Health Research Centre, 2010a, 2010b, 2012a, 2012b). One of the most pressing concerns identified by community members in these public engagement sessions was the need for youth programs that would demonstrate positive outcomes for the participants. In this paper, we will describe key aspects of one initiative led by the Qaujigiartiit Health Research Centre in Iqaluit, Nunavut, which was to develop a model for youth wellness interventions based on Inuit and community perspectives on adolescent well-being. This model was named "The Eight *Ujarait*/Rocks Model for Youth Wellness Interventions."

Background

Nearly three centuries ago, the arrival of European whalers and explorers to the Canadian Arctic marked a significant turning point in the health of Inuit. Interaction with European visitors through trade and gift exchange resulted in the introduction of infectious diseases that quickly took their toll among the Inuit population. During the 1920s, 1930s, and 1940s, tuberculosis, influenza, and sexually transmitted infections repeatedly ravaged Inuit populations (Inuit Tapiriit Kanatami, 2005; Sandiford Grygier, 1994; Waldram, Herring, & Young, 2007), and many of the same illnesses continue to present in high numbers in northern communities today (Healey, 2014a; Nunavut Department of Health & Social Services, 2012; Orr, 2013). Since then, Canadian Inuit have experienced a cultural shift from a nomadic, subsistence lifestyle to working and living in communities year-round (Inuit Tapiriit Kanatami, 2005). Although the process of relocation to communities began as a response by Indigenous Peoples to the presence of fur traders, explorers, and missionaries, it took new form with the systematic efforts of the government in the 1950s to "resettle" Canada's North (Tester & Kulchyski, 1994). As a result, Inuit were relocated to southern Canada to cut relief costs; to remote High Arctic regions to maintain Canadian sovereignty and support the economic initiatives of the Hudson's Bay Company; and off the land and into settlements to facilitate the provision of supplies, education, and medical care (Royal Commission on Aboriginal Peoples, 1996; Qikiqtani Inuit Association, 2010). In 1951, the first government-regulated school for Inuit was opened in Chesterfield Inlet (Pauktuutit, 2007). For some communities, up to three generations of Inuit children were sent away from their families to attend day schools in the larger communities (Pauktuutit, 2007). Residential schools for Inuit continued to open into the 1960s, and by 1963, 3,997 Inuit children were attending these schools (King, 2006). In June 1964, 75% of 6- to 15-year-old Inuit children and youth were enrolled in the schools (King, 2006). These students are the parents and grandparents, uncles and aunts of today. The experiences of resettled Inuit continue to have an impact on many Nunavut residents to this day (Healey, 2014a; Kral, Idlout, Minore, Dyck, & Kirmayer, 2011; see also the 12 short films at www.iggaumavara.com).

Trauma experienced during and after the settlement and resettlement era in the eastern Arctic (Healey, 2015; Kirmayer et al., 2009), and the loss of accumulated Inuit wisdom, knowledge, teachings, and practices that occurred as a result (Condon, 1990; Mancini Billson & Mancini, 2007; Moffitt, 2004; Qikiqtani Inuit Association, 2010; Steenbeek, Tyndall,

Rothenberg, & Sheps, 2006), are factors contributing to the mental health challenges in today's communities. Previous research has indicated that many young Inuit today do not feel a connection to or sense of stewardship for the land (*avatittinik kamatsiarniq*), or knowledge of harvesting skills and practices that are highly regarded in Inuit society (Nunavut Tunngavik, 2011; Searles, 2010).

Defining well-being. Well-being is an all-encompassing and holistic concept. Well-being affects every part of our daily lives, and how well we feel every day plays a major role in our health and how we get along with others or react to events. In this paper, we are discussing well-being in terms of an interactive process of becoming aware of and practicing behaviours that contribute to a sense of social, spiritual, physical, intellectual, and emotional balance. In a discussion document prepared by the Assembly of First Nations for the Mental Health Working Group, mental wellness was defined as "a life-long journey to achieve wellness and balance of the body, mind and spirit ... [and] includes self-esteem, personal dignity, cultural identity and connectedness in the presence of a harmonious physical, emotional, mental and spiritual wellness" (Mental Health Working Group, 2002).

In an analysis of positive mental health and mental health problems among Canadians, Stephens, Dulberg, and Joubert (1999) provide evidence linking current stress, social support, life events, education, and childhood traumas to several indicators of both positive and negative mental well-being. The authors define mental well-being as having the ability to cope effectively with challenges to both mental and physical functioning. Such abilities or attributes include happiness, satisfaction, self-esteem, mastery, and a sense of "coherence" (Stephens et al., 1999). In the context of Nunavut's colonial history and the prevalence of a number of issues, including violence, sexual trauma, substance use, suicide, and the sense of grief expressed by those who feel the loss of Inuit identity, achieving a sense of well-being can be a daily struggle.

Methods

This study was conducted by the Qaujigiartiit Health Research Centre, an independent community research centre that was formed by Nunavummiut to use research as a tool for action on community-identified health priorities. Two of the authors of this paper are from Nunavut and were considered older youth at the time of the development of this study, and their life experiences, perspectives, and community relationships informed much of the direction and motivation behind the study. The third author was also a Nunavut resident whose children and partner are from Iqaluit, and was embedded in her community, carrying with her a deep respect and understanding for Inuit ways of knowing and doing.

The study followed an Indigenous research framework based on Inuit philosophy called the *Piliriqatigiiniiq* Partnership Model for Community Health Research (Healey, 2014a). The study was registered with the Nunavut Research Institute according to the protocols that exist in Nunavut.

First, a review of the literature was conducted, using the terms *adolescence* and *Inuit* and *intervention* or *program* or *camp* or *land-based*. PubMed and Google Scholar databases were used to find peer-reviewed and grey literature. In the grey literature, books and reports on community-based youth programs were identified. Literature was synthesized and examined for thematic topics, with particular focus on youth program design, primary topic of focus for the program, and program attributes that contributed to successful implementation.

Second, themes from the literature review were presented to community members, parents, elders, youth, and youth workers for comment in a series of community consultations/ open dialogue sessions in Nunavut between 2009 and 2010. These sessions followed a consensus-based method similar to that outlined by Chatwood et al. (2015). The 37 participants were from Iqaluit, Panniqtuuq, Iqalututtiak (Cambridge Bay), and Qurluqtuq (Kugluktuk). They were asked to comment on the aspects of youth programs they felt were strengths, with particular emphasis on the skills and values youth should have the opportunity to learn while participating in such programs. Consensus on core concepts was achieved through an ongoing process of discussion and revision. The information shared by community members echoed the suggestions in the literature for community-driven, culturally relevant program models for Indigenous youth. Core concepts from the literature and community dialogue sessions were incorporated into a model for wellness interventions focusing on Nunavut youth, as presented here. The model was developed by the authors and validated by a subset of community members from the open dialogues who agreed to be contacted again for this purpose.

Third, the model was piloted as a camp program to validate the core concepts of the model. The model was implemented in a series of youth camps delivered six times in five communities in Nunavut between 2011 and 2013. The five communities were Panniqtuuq, Coral Harbour, Cambridge Bay, Arviat, and Iqaluit. Each camp ran for 2 weeks. Forty-eight youth participants, eight youth peer leaders, and 15 facilitators participated in the camps. Data were collected from campers and parents via an interviewer-administered questionnaire before and after participation in each camp. Findings are presented and discussed.

Results

The findings are presented in three sections: (a) the literature review and consultations, (b) the Eight *Ujarait*/Rocks Model, and (c) early results of model implementation.

Literature Review and Consultations

Themes emerging from the literature, which were validated and discussed in the open dialogue sessions/consultations with community members, included development of adolescent identity, Inuit cultural identity and practices, positive peer relationships, physical activity and mindfulness, stress, mentorship, coping skills, and self-esteem.

Development of adolescent identity. The community dialogues identified the diverse needs of adolescents and identity development as core elements for a youth program. The World

Health Organization (2016) defines adolescence as the period of time between the ages of 10 and 19 years. Adolescence is a period marked by rapid physical and behavioural changes. The physiological developments occurring during adolescence are triggered by a pre-set biological mechanism for growth and change (Steinberg & Sheffield Morris, 2001). This period of development is viewed as a time for self-exploration and identity formation (Steinberg & Sheffield Morris, 2001). From the perspective of Inuit elders, adolescence is viewed as a critical time for learning about decision-making, discovering new interests and talents, establishing some independence, demonstrating capabilities, preparing for the future, identifying with social groups, showing love, contributing to the community, and *pilimmaksarniq* (developing skills through effort and practice; Qaujigiartiit Health Research Centre, 2015; Kral, Salusky, Inuksuk, Angutimarik, & Tulugardjuk, 2014). Similarly, in a review of major developmental and personality theories, Vleioras and Bosma (2005) highlighted the following concepts in the development of adolescent identity: holding a positive opinion about oneself (self-acceptance); being able to choose or create contexts appropriate for one's psychological condition (environmental mastery); having warm and trusting relationships and being able to love (positive relations with others); having goals, intentions, and a sense of direction (purpose in life); continuous development of one's potential (personal growth); being self-determined and independent (autonomy).

Exposure to caring adults and positive social connections has been shown to encourage self-examination and knowledge seeking about the self (Vleioras & Bosma, 2005). Such connections are also important in the relational worldview of Inuit and other Indigenous Peoples with kinship-based societies (Thayer-Bacon, 2003). Adolescents require the opportunity to develop supportive relationships with adults and role models who can be resources for them in the community, including their immediate and extended family (Qaujigiartiit Health Research Centre, 2014). Membership within a social or cultural group also has been shown to promote protective factors for adolescent mental health, including continued self-exploration and commitment to a consistent identity (Dien, 2000; Klimstra, Hale, & Raaijamkers, 2010; Lachman, 2004; Steinberg & Sheffield Morris, 2001; Vleioras & Bosma, 2005).

Inuit cultural identity and practices. Various studies support land-based programs and the incorporation of time on the land for healing and reconnecting with one's Indigenous heritage (Ilisaqsivik, 2010a, 2010b; Searles, 2010; Takano, 2005; Tierney, 2007; Wilson, 2003). Many Indigenous groups in Canada have been reclaiming traditional practices, relearning land and hunting skills, and revitalizing Indigenous languages in the wake of the colonial experience (Corntassel, Chaw-win-is, & T'lakwadzi, 2009; Pauktuutit, 2012; Qikiqtani Inuit Association, 2010; Truth and Reconciliation Commission of Canada, 2012). Time on the land has been incorporated into healing programs for adults and youth struggling with substance misuse, trauma, incarceration, and the effects of collective/intergenerational trauma (Berman, 2009; Brady, 1995; Dorais, 2005; Lyons, 2010; Robbins & Dewar, 2011; Searles, 2001, 2010). The power *nuna* (land) holds for Nunavummiut is enriching and healing.

In today's increasingly globalized society, access to information, media, and Western pop and youth culture have been identified as contributing to a perceived divide between young Inuit and their elders or knowledge holders (Condon, 1987; Healey, 2014b). Possessing a strong cultural identity is known to increase self-esteem, self-confidence, and life purpose (Martinez & Dukes, 1997), and it was a prominent, overarching theme in the review and community dialogues.

Positive peer relationships. Friendship and a sense of belonging in early and late adolescence are among the most important aspects of a young person's life. Developmental theorists, sociologists, psychologists, and personality experts describe peer relationships during adolescence as influencing self-esteem (Erikson, 1968; Waldrip, Malcolm, & Jensen-Campbell, 2008), academic competence (Vaquera & Kao, 2006), involvement in sports teams/activities (Roseth, Johnson, & Johnson, 2008), psychological health (Steinhausen & Metzke, 2001), and purpose in life (Allen, Porter, McFarland, Marsh, & McElhaney, 2005; Daniels & Campbell, 2006; Wilkinson, 2008). At the same time, the added pressures that accompany popularity can lead some youth to engage in risk-taking behaviours if their peers do not value academic achievement, sports involvement, or other social behaviours (Allen et al., 2005; Parker, Rubin, Erath, Wojslawowicz, & Buskirk, 2006). Setting the tone for peer acceptance and respect, and structuring the Eight *Ujarait*/Rocks Model around positive behaviours, is at the core of this youth intervention. The promotion of peer acceptance and reciprocal support can be demonstrated throughout the learning modules and participatory activities.

Physical activity and mindfulness. The positive benefits of exercise for physical and mental health are well known (Dunton, Whalen, Jamner, & Floro, 2007; Janssen & LeBlanc, 2010; Lavallée, 2007). Physical activity contributes to improvements in youth academic performance and mental health indicators (Daniels & Campbell, 2006; Hillman, Erickson, & Kramer, 2008). The social connections developed through participation in team sports also make positive contributions to improved psychological well-being and self-esteem among youth (Daniels & Campbell, 2006; Dunton et al., 2007).

Across Nunavut, hip-hop culture and dance are very popular among youth. Children and youth in some communities form their own hip-hop dance clubs, regional workshops, and "battles" with support of an organization from Ottawa (BluePrintForLife, www.blueprintforlife.ca). During community consultations for this study, youth informants identified hip-hop as a fun, social physical activity, which they would like to see included in a youth intervention model.

While engaging youth in physical activity fosters awareness about the body's physical presence, mindfulness relaxation techniques were also identified in the literature as important tools to promote awareness of the connection between body, mind, and spirit, techniques to which community members responded very positively in the community dialogues. Mindfulness-based stress reduction and relaxation programs have been shown to enhance psychosocial well-

being and have become increasingly popular in school settings, young offender programs, and youth treatment centres to reduce stress and enhance overall well-being among youth (Biegel, Brown, Shapiro, & Schubert, 2009; Bogels, Hoogstad, van Dun, Scutter, & Restifo, 2008; Fang et al., 2010; Lawson, 2008). The ability to self-soothe and become calm in a stressful or agitating situation can be empowering and contribute to decreased stress, anxiety, and impulsivity, and can help with regulation of mood and/or emotion (Fang et al., 2010). The community dialogues suggested that the model should promote the practice of relaxation skills through teaching mindfulness-based stress reduction, yoga, and stretching.

Stress, coping, and the role of the home environment. The home environment plays an important role in the development of children and teens. It has been shown that healthy expression of emotions by parents and guardians can influence a youth's emotional regulation (Aldrich & Tenenbaum, 2006; Morris, Silk, Steinberg, Myers, & Robinson, 2007). Recent studies on family stability and stress levels among children have shown that significantly lower levels of cortisol (stress hormone) are found in children residing in homes with consistent, healthy emotional expression among the family members, and with mothers who exhibit low levels of depressive symptoms (Lupien, King, Mealney, & McEwan, 2002). In a study about the perspectives of Grade 9 students at one high school in Nunavut on the topic of sexual health and relationships, youth highlighted poverty, financial troubles at home, alcohol and drug use among their parents, and resulting interactions with the police as very stressful daily life events, which have an impact on their relationships and overall well-being (Healey, 2012). Stress reduction strategies, outlets for emotional expression, and skills for supporting positive reciprocal relationships are woven into the Eight *Ujarait*/Rocks Model. These strategies enhance the development of skills for managing internalized stress and can provide youth with alternative coping tools.

Mentorship: Connecting with and learning from someone. Mentoring among older youth and early adolescents, adults, and elders has been associated with better attendance at school and better attitudes towards school; lowered levels of substance abuse; positive social attitudes and relationships; and improved psychological well-being (Jekielek, Moore, Hair, & Scarupa, 2002; Qaujigiartiit Health Research Centre & Arviat Community Wellness Committee, 2015; Styles & Morrow, 1992). Programs such as Big Brothers Big Sisters of Canada, which support increased involvement in postsecondary education and promote awareness of unhealthy behaviours such as substance abuse, have included mentorship as a strong component of their models. Community members and elders in Nunavut provide mentorship by sharing their knowledge, skills, and experiences while, in turn, learning from the youth and offering opportunities for observation and questions. One elder who provided feedback on the model indicated, "I went to residential school. So I never got to be a youth. Now I get to be with youth, and I can [share in] the joys of the teen years that were taken from me." This perspective

underscores the reciprocal nature of the relationships that are formed through mentorship—the youth learn from the elders and the elders learn from the youth.

Coping skills and problem solving: The importance of self-expression. In the community dialogues, high rates of substance use, addictions, and suicides among youth were attributed to the need for youth to develop coping skills. Respondents attributed the lack of coping skills among youth to the traumas experienced by the parents during the (re)settlement events, tuberculosis evacuations, and residential school. Research into adolescent coping focuses on adaptive and maladaptive approaches to dealing with life, stress, family dysfunction, and social stressors (Recklitis & Noam, 1999). Andrews, Ainley, and Frydenburg (2004) discussed three styles of coping including (a) solving the problem (maintaining a positive outlook and taking steps to solve the problem), (b) reference to others (seeking support from others), and (c) non-productive coping (ignoring the problem, worrying, and wishing the problem away). Positive outlets for coping, self-expression, and contemplation among youth can include, but are not limited to, music, physical activity, social networking, engaging in cultural activities and traditions associated with cultural identity, group/club membership, talking to others, being creative, journaling, practicing relaxation skills, and generating solutions to problems (Tyson, 2002; von Georgi, Gobel, & Gebhardt, 2009). Coping skills, problem solving, and selfexpression all work to support a young person's self-esteem and sense of self-efficacy, which is one of the goals for the model for youth mental health interventions in Nunavut.

Self-esteem. Self-esteem was identified in the literature and in the community dialogues as a core area of focus for youth programs. Having an understanding of and positive feelings toward one's own skills and abilities is an important part of self-esteem among youth (Eccles et al., 1989). Changes in self-esteem can be observed over time, for example with transitions from elementary to junior high school to high school settings. Mastering a skill, feeling connected to others socially, maintaining a consistent identity, and having access to a variety of coping methods all contribute to positive adolescent self-esteem (Daniels & Campbell, 2006; Eccles et al., 1989). Froh, Sefick, and Emmons (2008) found that teens who were engaged in helpful activities that gave back to the community reported enhanced gratitude, optimism, and life satisfaction and decreased negative affect (mood). For this reason, one of the core activities in the model was related to making a positive contribution to one's community to (a) provide an opportunity to demonstrate capabilities and strengths, (b) bring joy to others in the community, and (c) increase self-esteem among youth.

The Eight *Ujarait*/Rocks Model

This model for youth mental health and wellness interventions was designed to respond to the needs of Nunavut youth during a critical stage of adolescent development. It was grounded in research, best practice, and community perspective. As former Nunavut youth and current youth advocates, the authors designed the model based on all the available evidence as well as their own stories and experience. *Ujaraq* is the Inuktitut word for "rock" (*ujarait* is plural). The

Eight *Ujarait*/Rocks Model highlights eight core constructs, which symbolize the formation of a solid stone foundation comprising skills and knowledge upon which young people build their lives. The eight *ujarait* are visualized in the form of a ring, which is a common formation on the land in the Arctic, where the stones have been used to hold down the base of a tent (Figure 1).

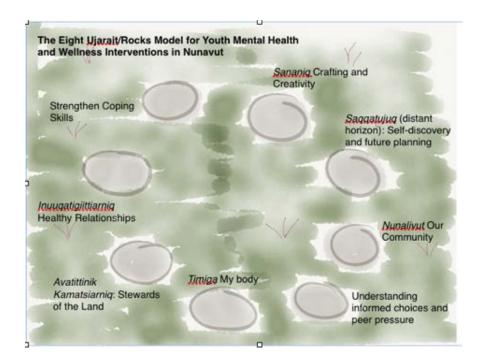


Figure 1. The Eight *Ujarait*/Rocks Model for youth mental health and wellness interventions in Nunavut.

The eight evidence-based modules or *ujarait* are the following:

- Module/*Ujaraq* 1: Strengthening Coping Skills
- Module/*Ujaraq* 2, *Inuuqatigiitiarniq* (being respectful of others): Building Healthy and Harmonious Relationships
- Module/*Ujaraq* 3, *Timiga* (my body): Nurturing Awareness of the Body, Movement, and Nutrition
- Module/*Ujaraq* 4, *Sananiq*: Crafting and Exploring Creativity
- Module/*Ujaraq* 5, *Nunalivut* (our community): Fostering Personal and Community Wellness
- Module/*Ujaraq* 6, *Saqqatujuq* (distant horizon): Self-discovery and Future Planning
- Module/*Ujaraq* 7: Understanding Informed Choices and Peer Pressure
- Module/*Ujaraq* 8, *Avatittinik Kamatsiarniq* (stewards of the land): Connecting Knowledge and Skills on the Land

The modules/*ujarait* promote positive social interactions (Modules 1, 2, 5, 7, and 8); opportunities for self-reflection and self-expression (Modules 2, 4, 6, and 8); cultural skill-

building (Modules 3, 4, and 8); and exploring the relationship between healthy minds and bodies (Modules 3 and 7). They are delivered in a positive, respectful, strengths-based, solution-oriented space. The model also emulates the aforementioned concept of *pilimmaksarniq*, which is the development of skills through effort and practice—a critical concept in understanding Inuit ways of knowing. Each module incorporates hands-on activities in a fun and enriching learning environment. The Nunalivut module directs youth toward collectively addressing a community by contributing time and energy to an activity, such as visiting elders; helping clean their community by picking up garbage; volunteering at the animal shelter, thrift shop, or soup kitchen; or baking and giving food to someone in need. The *Timiga* module focuses on the body, physical activity, and nutrition, including the practice of Inuit games and traditional activities, such as hunting, harvesting fish, hiking, berry picking, egg picking, cleaning and caring for the campsite, etc., which naturally involve body movement. The need for mentorship is addressed in the Eight *Ujarait*/Rocks Model by encouraging two older youth mentors or peer leaders to join the intervention leadership team, acting as role models and supporting the intervention's implementation.

Early Results of Model Implementation

Early findings indicate that the activities in the program fostered physical, mental, emotional, and spiritual wellness and supported a holistic perspective of wellness. The camp promoted knowledge sharing with community members and role models, thereby strengthening relationships between youth and members of the community. These relationships are important connections for youth as they move into adulthood. Campers described it as "an experience of a lifetime" and said that they learned how to deal with different emotions. Overall, the camp promoted team building with peers, a sense of unity among the group, and connection to the community at large. Campers reported that it was fun and educational and that they gained an increased interest in participating in community and land-based activities after the camp, they valued the land, and they valued the role of the land/water in Inuit culture. Campers reported feeling more happy, cheerful, and energetic and less sad after participation in the camp. Campers indicated that they understood their personal strengths and felt better prepared to plan for their future and set goals for themselves.

Parents reported seeing significant positive behaviour and attitude changes in their children. Parents expressed pride for the camp program itself, appreciated that it was developed by Nunavummiut for Nunavummiut, and felt that the values and knowledge shared in the camp were indicative of this. Parents wanted to see the camp continue and expressed that continuity of the camp was extremely important to them, and that it should be offered through schools as well as in the community. Parents indicated that their children were more helpful, happy, and aware of respecting others. They reported observing an increase in confidence in their children and that the children were better prepared to deal with difficult situations. Parents stated that the camp created an opportunity for youth to make friends, relax their minds, participate in more activities, and increase independence; they felt that the camp was a good experience for youth.

Discussion

There has been an increasing movement in prevention science to study the cultural adaptation of interventions (Backer, 2002; Castro, Barrera, & Martinez, 2004; Kumpfer, Alvarado, Smith, & Bellamy, 2002). At the same time, a dialogue is emerging about the tension between the implementation of an intervention as intended by the developer (fidelity), and the modification of the program based on the specific needs of a target group (adaptation; Castro et al., 2004). Within the literature on family-based interventions with First Nations, Inuit, and Métis people, the process tends to begin with the identification of a sound intervention designed for a specific population, which is then adapted to be inclusive of the sociocultural expectations of the target First Nations, Inuit, and/or Métis group. For this study, we reversed this process, instead focusing on the development, implementation, and evaluation of an intervention model designed by and for Nunavummiut. The intervention model was embedded in the social context, language, and values of the population for whom it was designed. The results demonstrate that evidence-based, community-driven models for youth mental health interventions in the North hold extraordinary promise.

Inuit families living in the Canadian Arctic experienced a number of relocation events in the 1950s and 1960s during the resettlement program, residential school period, and tuberculosis-related medical evacuations, which disrupted kinship groups and disconnected families (Healey, 2015). One of the important findings of this study is that application of the model through a camp program had an impact on the individuals involved beyond their immediate participation in the program. The implementation of this model has positively impacted family and community relationships and promoted enduring Inuit values such as connection to immediate and extended family, the community, and the land.

This article provides only one perspective on a highly complex issue that is in constant flux. The needs of Nunavut youth are altered as our communities continue to rapidly change. Future research should critically examine youth mental health intervention models and the philosophical and cultural assumptions implicit in their delivery. Long-term monitoring of the participants in this study, and ongoing evaluations of the Eight *Ujarait*/Rocks Model as it continues to be applied, are needed to contribute to the robust evidence base for this model over time.

References

- Ajunnginiq Centre. (2006). Suicide prevention: Inuit traditional practices that encouraged resilience and coping. Retrieved from National Aboriginal Health Organization website: http://www.naho.ca/documents/it/2006_Suicide_Prevention-Elders.pdf
- Aldrich, N. J., & Tenenbaum, H. R. (2006). Sadness, anger, and frustration: Gendered patterns of early adolescents' and their parents' emotion talk. *Sex Roles*, 55(11), 775–785. doi:10.1007/s11199-006-9131-y

- Allen, J. P., Porter, M. R., McFarland, F. C., Marsh, P., & Boykin McElhaney, K. (2005). The two faces of adolescents' success with peers: Adolescent popularity, social adaptation, and deviant behavior. *Child Development*, 76(3), 747–760. doi:10.1111/j.1467-8624.2005.00875.x
- Andrews, M., Ainley, M., & Frydenberg, E. (2004, May). *Adolescent engagement with problem solving tasks: The role of coping style, self-efficacy, and emotions.* Paper presented at the Australian Association for Research in Education International Conference, Melbourne, Australia.
- Backer, T. (2002). Finding the balance: Program fidelity and adaptation in substance abuse prevention: A state-of-the art review (ERIC No. ED469354). Retrieved from ERIC website: http://eric.ed.gov/?id=ED469354
- Berman, M. (2009). Moving or staying for the best part of life: Theory and evidence for the role of subsistence in migration and well-being of Arctic Inupiat residents. *Polar Geography*, 32(1), 3–16.
- Biegel, G., Brown, K., Shapiro, S., & Schubert, C. (2009). Mindfulness-based stress reduction for the treatment of adolescent psychiatric outpatients: A randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 77(5), 855–866.
- Bogels, S., Hoogstad, B., van Dun, L., Scutter, S., & Restifo, K. (2008). Mindfulness training for adolescents with externalizing disorders and their parents. *Behavioural and Cognitive Psychology*, *36*, 193–209.
- Brady, M. (1995). Culture in treatment, culture as treatment: A critical appraisal of developments in addictions programs for Indigenous North Americans and Australians. *Social Science & Medicine*, *41*(11), 1487–1498.
- Castro, F., Barrera, M., Jr., & Martinez, C., Jr. (2004). Cultural adaptation of prevention interventions: Solving tensions between fidelity and fit. *Prevention Science*, *5*(1), 41–45.
- Chatwood, S., Paulette, F., Baker, R., Eriksen, A., Hansen, K. L., Eriksen, H., . . . Brown, A. (2015). Approaching Etuaptmumk—Introducing a consensus-based mixed method for health services research. *International Journal of Circumpolar Health*, 74. doi:10.3402/ijch.v74.27438
- Condon, R. (1987). *Inuit youth: Growth and change in the Canadian Arctic.* London, UK: Rutgers University Press.
- Condon, R. (1990). The rise of adolescence: Social change and life stage dilemmas in the central Canadian Arctic. *Human Organization*, *49*, 266–279.
- Corntassel, J., Chaw-win-is, & T'lakwadzi. (2009). Indigenous storytelling, truth-telling, and community approaches to reconciliation. *ESC: English Studies in Canada*, *35*(1), 137–159.
- Daniels, E., & Campbell, L. (2006). A longitudinal investigation of sports participation, peer acceptance, and self-esteem among adolescent girls and boys. *Sex Roles*, *55*, 875–880.
- Dien, D. (2000). The evolving nature of self-identity across four levels of history. *Human Development*, 43(1), 1–18.

- Dorais, L.-J. (2005). Comparing academic and Aboriginal definitions of Arctic identities. *Polar Record*, 41(1), 1–10. doi:10.1017/S0032247404003857
- Dunton, G. F., Whalen, C. K., Jamner, L. D., & Floro, J. N. (2007). Mapping social and physical contexts of physical activity across adolescence using ecological momentary assessment. *Annals of Behavioral Medicine*, *34*(2), 144–153.
- Eccles, J. S., Wigfield, A., Flanagan, C. A., Miller, C., Reuman, D., & Yee, D. (1989). Self-concepts, domain values and self-esteem: Relations and changes at early adolescence. *Journal of Personality*, *57*(2), 283–310. doi:10.1111/j.1467-6494.1989.tb00484.x
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.
- Fang, C. Y., Reibel, D. K., Longacre, M. L., Rosenzweig, S., Campbell, D. E., & Douglas, S. D. (2010). Enhanced psychosocial well-being following participation in a mindfulness-based stress reduction program is associated with increased natural killer cell activity. *Journal of Alternative and Complementary Medicine*, 16(5), 531–538.
- Froh, J. J., Sefick, W. J., & Emmons, R. A. (2008). Counting blessings early in adolescents: An experimental study of gratitude and subjective well-being. *Journal of School Psychology*, 46(2), 213–233. doi:10.1016/j.jsp.2007.03.005
- Galloway, T., & Saudny, H. (2012). *Inuit Health Survey 2007–2008: Nunavut community and personal wellness.* Retrieved from Nunavut Tunngavik website: https://www.tunngavik.com/files/2012/09/IHS_NUNAVUT-FV-V11_FINAL_AUG-15_2012.pdf
- Healey, G. (2007). *Health Research Ethics Workshop and community consultation: Rankin Inlet, NU, November 13–15, 2007.* Iqaluit, NU: Qaujigiartiit Health Research Centre.
- Healey, G. (2012). Exploring sexual health through drama and performance arts: The development of arts-based public health interventions for Nunavut youth. A report on the activities of a project funded by the Public Health Agency of Canada. Iqaluit, NU: Qaujigiartiit Health Research Centre.
- Healey, G. (2014a). Inuit family understandings of sexual health and relationships in Nunavut. *Canadian Journal of Public Health*, 105(2), e133–e137.
- Healey, G. (2014b). Inuit parent perspectives on sexual health communication with adolescent children in Nunavut: "It's kinda hard for me to try to find the words." *International Journal of Circumpolar Health*, 73. doi:10.3402/ijch.v73.25070
- Healey, G. (2015). Childhood trauma and the disruption of attachments in Inuit relational society: A study from Nunavut Territory, Canada. Manuscript submitted for publication.
- Hicks, J. (2007). The social determinants of elevated rates of suicide among Inuit youth. *Indigenous Affairs*, 7(4), 30–37.
- Hillman, C. H., Erickson, K. I., & Kramer, A. F. (2008). Be smart, exercise your heart: Exercise effects on brain and cognition. *Nature Reviews Neuroscience*, *9*, 58–65. doi:10.1038/nrn2298

- Ilisaqsivik. (2010a). *Land based programming: Arnait (women's) retreat* [Web page]. Retrieved from http://ilisaqsivik.ca/programs-and-services/land-based-programming
- Ilisaqsivik. (2010b). *Land based programming: Men's group and father/son program* [Web page]. Retrieved from http://ilisaqsivik.ca/programs-and-services/land-based-programming/men%E2%80%99s-group-father-and-son-program
- Inuit Tapiriit Kanatami. (2005). 5000 years of Inuit history and heritage. Retrieved from https://www.itk.ca/publication/5000-years-inuit-history-and-heritage
- Janssen, I., & LeBlanc, A. (2010). Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *International Journal of Behavioral Nutrition and Physical Activity*, 7(40), 1–16.
- Jekielek, S. M., Moore, K. A., Hair, E. C., & Scarupa, H. J. (2002). *Mentoring: A promising strategy for youth development* (Research Brief, Publication No. 2002-21). Retrieved from Child Trends website: http://www.childtrends.org/wp-content/uploads/2002/02/MentoringRB.pdf
- King, D. (2006). A brief report of the federal government of Canada's residential school system for Inuit. Retrieved from Aboriginal Healing Foundation website: http://www.ahf.ca/downloads/kingsummaryfweb.pdf
- Kirmayer, L. J., Tait, C. L., & Simpson, C. (2009). Mental health of Aboriginal Peoples in Canada: Transformations of identity and community. In L. J. Kirmayer & G. G. Valaskis (Eds.), *Healing traditions: The mental health of Aboriginal Peoples in Canada* (pp. 3–35). Vancouver, BC: University of British Columbia Press.
- Klimstra, T. A., Hale, W. W. I., & Raaijamkers, Q. A. W. (2010). Identity formation in adolescence: Change or stability? *Journal of Adolescence*, *39*, 150–162.
- Kral, M. J., Salusky, I., Inuksuk, P., Angutimarik, L., & Tulugardjuk, N. (2014). Tunngajuq: Stress and resilience among Inuit youth in Nunavut, Canada. *Transcultural Psychiatry*, 51(5), 673-692.
- Kral, M. J., Idlout, L., Minore, J. B., Dyck, R. J., & Kirmayer, L. J. (2011). Unikkaartuit: Meanings of well-being, happiness, health, and community change among Inuit in Canada. *American Journal of Community Psychology, 48*, 426–438.
- Kumpfer, K., Alvarado, R., Smith, P., & Bellamy, N. (2002). Cultural sensitivity and adaptation in family-based prevention interventions. *Prevention Science*, *3*, 241–246.
- Lachman, F. M. (2004). Identity and self: Historical antecedents and developmental precursors. *International Forum of Psychoanalysis*, 13(4), 246–253. doi:10.1080/08037060410004700
- Lavallée, L. F. (2007). Physical activity and healing through the medicine wheel. *Pimatisiwin: A Journal of Aboriginal and Indigenous Community Health*, *5*(1), 127–153. Retrieved from http://www.pimatisiwin.com/online/?page_id=344
- Lawson, K. (2008). Building resiliency for youth through yoga in the Northwest Territories and Nunavut [Web page]. Retrieved from http://www.arjuna.ca/buildingresiliency.php

- Lupien, S. J., King S., Mealney, M. J., & McEwan, B.S. (2002). Child's stress hormone level correlate with mother's socioeconomic status and depressive state. *Biological Psychiatry*; 48: 976-80.
- Lyons, N. (2010). The wisdom of Elders: Inuvialuit social memories of continuity and change in the 20th century. *Arctic Anthropology*, 47(1), 22–38.
- Mancini Billson, J., & Mancini, K. (2007). *Inuit women: Their powerful spirit in a century of change*. Lanham, MD: Rowman and Littlefield.
- Martinez, R. O., & Dukes, R. L. (1997). The effects of ethnic identity, ethnicity, and gender on adolescent wellbeing. *Journal of Youth and Adolescence*, 28(5), 503–514.
- Mearns, C. (2013). *Makimautiksat Youth Wellness and Empowerment Camp curriculum*. Iqaluit, NU: Qaujigiartiit Health Research Centre.
- Mental Health Working Group. (2002). *Mental wellness framework: A discussion document for comprehensive culturally appropriate mental health services in First Nations and Inuit communities*. Ottawa, ON: Assembly of First Nations, Inuit Tapiriit Kanatami, and First Nations & Inuit Health Branch.
- Moffitt, P. M. (2004). Colonialization: A health determinant for pregnant Dogrib women. *Journal of Transcultural Nursing*, 15(4), 323–330. doi:10.1177/1043659604268959
- Morris, A. S., Silk, J. S., Steinberg, L., Myers, S. S., & Robinson, L. R. (2007). The role of the family context in the development of emotion regulation. *Social Development*, *16*, 361–388.
- Nunavut Bureau of Statistics. (2011). *Nunavut total population estimates by age group, region and community, 2011, as of July 1*. Retrieved from http://www.stats.gov.nu.ca/Publications/Popest/Population/Nunavut Population Estimates by Sex and Age Group, 2011 (3 tables).xls
- Nunavut Department of Health & Social Services. (2012). Sexually transmitted infections in Nunavut 2006–2011. Iqaluit, NU: Author.
- Nunavut Tunngavik. (2011). 2010–1011 annual report on the state of Inuit culture and society: The status of Inuit children and youth in Nunavut. Retrieved from https://www.tunngavik.com/files/2012/11/2010-11-SICS-Annual-Report-Eng.pdf
- Orr, P. (2013). Tuberculosis in Nunavut: Looking back, moving forward. *Canadian Medical Association Journal*, 185(4), 287–288. doi:10.1503/cmaj.121536
- Parker, J. G., Rubin, K. H., Erath, S. A., Wojslawowicz, J. C., & Buskirk, A. A. (2006). Peer relationships, child development and adjustment: A developmental psychopathology perspective. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology: Theory and method* (2nd ed., pp. 419–493). Hoboken, New Jersey: John Wiley & Sons.
- Pauktuutit. (2007). Sivumuapallianiq: Journey forward: National Inuit residential schools healing strategy. Ottawa, ON: Pauktuutit Inuit Women's Association of Canada.

- Pauktuutit. (2012). *TRC—Virtual quilt (Nipiqaqtugut Sanaugatigut)* [Web page]. Retrieved from http://pauktuutit.ca/abuse-prevention/residential-schools/truth-and-reconciliation-commemoration-initiative-virtual-quilt/
- Qaujigiartiit Health Research Centre. (2010a). *Child and youth mental health services in Nunavut: Needs assessment*. Retrieved from http://www.qhrc.ca/sites/default/files/component_3_-_needs_assessment_-_final.pdf
- Qaujigiartiit Health Research Centre. (2010b). *Youth health and wellness camps: A review of programs and literature in the North*. Retrieved from http://www.qhrc.ca/sites/default/files/component_1_-_lit_review_-_jun_2010.pdf
- Qaujigiartiit Health Research Centre. (2012a). *Exploring the perspectives of frontline mental health workers in Nunavut*. Retrieved from http://www.qhrc.ca/sites/default/files/QHRC%20MentalHealthWorkers_English.pdf
- Qaujigiartiit Health Research Centre. (2012b). *Perspectives of foster parents working with the Nunavut foster care system*. Retrieved from http://www.qhrc.ca/sites/default/files/QHRC%20PerspectiveFosterCare_English.pdf
- Qaujigiartiit Health Research Centre & Arviat Community Wellness Committee (2015). *Report of the Atii! Health Living Project: Young Hunters Support Program.* Retrieved from http://www.qhrc.ca/sites/default/files/atii_lets_do_it_-_hw_2013-15_-_final_report_-_july_2015_1.pdf
- Qikiqtani Inuit Association. (2010). *Qikiqtani Truth Commission final report: Achieving Saimaqatigiingniq*. Retrieved from http://www.qtcommission.com/documents/main/QTC_Final_Report_Oct_FINAL.pdf
- Recklitis, C. J., & Noam, G. G. (1999). Clinical developmental perspectives on adolescent coping. *Child Psychiatry and Human Development*, 30(2), 87–101.
- Robbins, J. A., & Dewar, J. (2011). Traditional Indigenous approaches to healing and the modern welfare of traditional knowledge, spirituality and lands: A critical reflection on practices and policies taken from the Canadian Indigenous example. *International Indigenous Policy Journal*, 2(4). doi:10.18584/iipj.2011.2.4.2
- Roseth, D. J., Johnson, D. W., & Johnson, R. T. (2008). Promoting early adolescents' achievement and peer relationships: The effects of cooperative, competitive, and individualistic goal structures. *Psychological Bulletin*, 134(2), 223–246.
- Royal Commission on Aboriginal Peoples. (2006). Relocation of Aboriginal communities. In *Report of the Royal Commission on Aboriginal Peoples* (Volume 1, Part 2, Chapter 11). Retrieved from https://archive.org/stream/RoyalCommissionOnAboriginalPeoples-FinalReport-Vol.1-Looking/RoyalCommissionOnAboriginalPeoples-FinalReport-Vol.1_djvu.txt
- Sandiford Grygier, P. (1994). *A long way from home: The tuberculosis epidemic among the Inuit.* Montreal, QC: McGill-Queen's University Press.
- Searles, E. (2001). Fashioning selves and tradition: Case studies on personhood and experience in Nunavut. *The American Review of Canadian Studies*, 31(1), 121–136.

- Searles, E. (2010). Placing identity: Town, land and authenticity in Nunavut, Canada. *Acta Borealia*, 27(2), 151–166.
- Steenbeek, A., Tyndall, M., Rothenberg, R., & Sheps, S. (2006). Determinants of sexually transmitted infections among Canadian Inuit adolescent populations. *Public Health Nursing*, 23(6), 531–534.
- Steinberg, L., & Sheffield Morris, A. (2001). Adolescent development. *Annual Review of Psychology*, 52(1), 55–83.
- Steinhausen, H. C., & Metzke, C. W. (2001). Risk, compensatory, vulnerability, and protective factors influencing mental health in adolescence. *Journal of Youth and Adolescence*, 30(3), 259–280.
- Stephens, T., Dulberg, C., & Joubert, N. (1999). Mental health of the Canadian population: A comprehensive analysis. *Chronic Diseases in Canada*, 20(3), 118–126. Retrieved from http://www.collectionscanada.gc.ca/webarchives/20071212071117/http://www.phacaspc.gc.ca/publicat/cdic-mcc/20-3/c_e.html
- Styles, M. B., & Morrow, K. V. (1992). *Understanding how youth and elders form relationships: A study of four Linking Lifetimes programs*. Retrieved from http://www.issuelab.org/resource/understanding_how_youth_and_elders_form_relationships_a_study_of_four_linking_lifetimes_programs
- Takano, T. (2005). Connections with the land: Land-skills courses in Igloolik, Nunavut. *Ethnography*, 6(4), 463–486.
- Tester, F. J., & Kulchyski, P. (1994). *Tammarniit (mistakes): Inuit relocation in the eastern Arctic, 1939–63*. Vancouver, BC: University of British Columbia Press.
- Thayer-Bacon, B. (2003). Relational epistemologies. New York, NY: Peter Lang
- Tierney, J. (2007). *Community wellness and youth suicide in Nunavut* (Master's thesis). Retrieved from http://summit.sfu.ca/item/2573
- Truth and Reconciliation Commission of Canada. (2012). *The Truth and Reconciliation Commission of Canada: Interim Report*. Retrieved from http://www.trc.ca/websites/trcinstitution/index.php?p=580
- Tyson, E. H. (2002). Hip hop therapy: An exploratory study of a rap music intervention with atrisk and delinquent youth. *Journal of Poetry Therapy*, 5(3), 131–144.
- Vaquera, E., & Kao, G. (2006). Do you like me as much as I like you? Friendship reciprocity and its effects on school outcomes among adolescents. *Social Science Research*, *37*(1), 55–72.
- Vleioras, G., & Bosma, H. A. (2005). Are identity styles important for psychological wellbeing? *Journal of Adolescence*, 28(3), 397–409.
- von Georgi, R., Gobel, M., & Gebhardt, S. (2009). Emotion modulation by means of music and coping behaviour. In R. Hass & V. Brandes (Eds.), *Music that works: Contributions of*

- *biology, neurophysiology, psychology, sociology, medicine and musicology* (pp. 301–317). Vienna, Austria: Springer-Verlag Wien.
- Waldram, J. B., Herring, A., & Young, T. K. (2007). *Aboriginal health in Canada: Historical, cultural, and epidemiological perspectives*. Toronto, ON: University of Toronto Press.
- Waldrip, A. M., Malcolm, K. T., & Jensen-Campbell, L. A. (2008). With a little help from your friends: The importance of high-quality friendships on early adolescent adjustment. *Social Development*, 17(4), 832–852.
- Wilkinson. (2008). Development properties of the adolescent friendship attachment scale. *Journal of Youth and Adolescence*; 37, 1270-79.
- Wilson, K. (2003). Therapeutic landscapes and First Nations Peoples: An exploration of culture, health and place. *Health and Place*, *9*, 83–93.
- World Health Organization. (2016). *Maternal, newborn, child and adolescent health: Adolescent development*. Retrieved from http://www.who.int/maternal_child_adolescent/topics/adolescence/dev/en/. Access date: February 15, 2016