Supplementary File

Evidence review of Indigenous culture for health and wellbeing

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Table 1. Supplementary table of all publications included in the evidence review and strength of evidence assessment

Study	Location	Date	Study design	Method	Sample	Effect	Findings	Main health outcome	Effect	Strength of evidence	Study limitations	directness	consistency	precision	Indigenous viewpoint	Reporting bias
Allen et al. (2017)	South-west Alaska, USA	2017	Program evaluation with quantitative analysis. 128 Yup'ik youths from two rural Alaskan communities. The study compared two communities, one with a high intensity intervention and one with a low intensity intervention. Intervention	quantitative	128	Positive	A culturally based intervention (promoting culturally specific protective factors: social organisation, cultural protocols, knowledge, role of Elders) was used to guide youth on reasons for life and sobriety in young people. After attending at least 7 sessions, there was an increase in reported reasons for life by participants. Mixed effects regression models contrasted treatment and comparison arms, and identified significant intervention effects on 'reasons for life' (d = 0.27, p < .05) but not 'reflective processes'.	Social and emotional wellbeing	Positive	low	High	Direct	Inconsistent	Precise	Yes	Suspected
Anderson and Kowal (2012)	Utopia, NT, Australia	2012	Qualitative research: Archival materials, ethnographic notes and 4 oral histories.	qualitative	4	Positive	This historical narrative demonstrates that important social and cultural structures including: traditional hunting and gathering, decision making, and spiritual connections of people, have been maintained and enabled health outcomes. The maintenance of culture has facilitated connectedness and collective-efficacy to the benefit of Utopia's residents and their health. Continued resistance to centralization of services, such as the health service, demonstrates the continued collective-efficacy of residents. At the same time, their economic situation remained negligible, highlighting the significance of the psychosocial determinants of health such as connectedness and collective efficacy.	Social and emotional wellbeing	Positive	Moderate	Low	Direct	Consistent	Imprecise	Yes	Undetected
Bagelman, Devereaux and Hartley (2016)	Coast Salish territories, British Columbia, Canada	2016	Community-based project and qualitative - participatory observation working with Indigenous Canadian communities. 51 gatherings were organised from 2007-2012, with over 5000 people participating.	qualitative	5000	Positive	Feasts helped to promote health and wellbeing practices, including positive physical and emotional impact. Recurring themes included the revitalisation of culture and teaching of traditional knowledges and the reconnection of people with each other and their cultural heritage.	Social and emotional wellbeing	Positive	Moderate	Medium	Direct	Unknown	Precise	Yes	Suspected
Bals et al. (2011)	Norway (multiple locations)	2011	Population-based cross-sectional study. The sample consisted of 450 Indigenous Sami youth, aged 15-16 years.	quantitative	450	Positive	Several enculturation factors and self-efficacy were identified as potential protective factors against mental health problems. For boys, self-efficacy and participation in cultural activities were associated with decreased internalizing symptoms. Additionally, self-efficacy interacted with Sami language competence and cultural activities: when self-efficacy increased, these enculturation factors were related to symptom reduction. For girls, self-efficacy had an independent effect on internalizing symptoms and also strengthened the relationship between participation in cultural activities and reduced externalizing symptoms. Sami language competence was related to the reduction of both internalizing and externalizing symptoms in girls.	Social and emotional wellbeing	Positive	low	Medium	Direct	Unknown	Precise	No	Suspected
Biddle and Crawford (2017)	Australia	2017	Population based cross-sectional study. NATSISS analysis 2014/15	quantitative	10,000+	Positive	Learning or knowing an Aboriginal or Torres Strait language was a key factor for participation in the arts and cultural activities. Attendance at cultural events was also positively associated with reported happiness.	Social and emotional wellbeing	Positive	Moderate	Low	Direct	Unknown	Precise	No	Undetected
Biddle and Swee (2012)	Australia	2012	Population-based cross-sectional study. NATSISS 2008 analysis	quantitative	10,000+	Positive	An association between higher levels of self-reported happiness and living on homelands, participating in harvesting activities, learning an Indigenous language and participating in cultural activities.	Social and emotional wellbeing	Positive	Moderate	Medium	Direct	Unknown	Precise	No	Undetected
Browne-Yung, Ziersch, Baum and Gallaher (2013)	Adelaide, Australia	2013	Qualiative - indeth interviews 153 individuals in urban setting.	qualitative	153	Mixed	Strong networks of social support and the central role of cultural identity were perceived as beneficial for health and well-being. Kinships networks were identified as a mediating factor that reduced disadvantage in health care delivery, but also placed excessive demands on people. Health was perceived to be directly influenced by participation in Aboriginal health organisations, which increased access to medical and dental care. Social capital was strongly associated with cultural factors. They also found that social capital interacts with Aboriginal identity and has both positive and negative effects on health.	Physical health	Positive	low	Medium	Direct	Unknown	Imprecise	Yes	Suspected
Burgess et al. (2008)	Remote community in Arnhem Land, Australia	2008	Cross-sectional study. Purposively sampled participants, 301 Indigenous adults aged 15 to 54 years, recruited from a remote Australian community.	quantitative	301	Positive	A significant and substantial association between greater participation in caring for country activities and lower body mass index was demonstrated. Adjusting for socio-demographic factors and health behaviours, an inter-quartile range rise in caring for country scores was associated with 6.1 Kg and 5.3 Kg less body weight for non-pregnant women and men respectively .A strong association was observed between residence in homelands and greater participation in caring for country. Residence also demonstrated significant independent associations with less frequent takeaway consumption, more frequent physical activity and more frequent consumption of bush foods – behaviours that would be expected to contribute to a lower BMI.	Risk factors	Positive	Moderate	Medium	Direct	Consistent	Imprecise	Yes	Undetected

Study	Location	Year	Description	Type	N	Direction	Findings	Category								
Burgess et al. (2009)	Remote community in Arnhem Land, Australia	2009	Cross-sectional study, involved 298 participants from a remote area who completed a caring for country questionnaire, and who provided data measuring factors related to excess Indigenous morbidity and mortality.	quantitative	298	Positive	Controlling for sociodemographic characteristics and health behaviours, multivariate regression revealed significant and substantial associations between caring for country and health outcomes. An interquartile range rise in the weighted composite caring-for-country score was significantly associated with more frequent physical activity, better diet, lower BMI, less abdominal obesity (odds ratio [OR], 0.43; 95% CI, 0.26–0.72), lower systolic blood pressure, less diabetes (OR, 0.12; 95% CI, 0.03–0.52), lower HbA1c level (= −0.45; 95% CI, −0.79 to −0.11), non-elevated ACR (OR, 0.28; 95% CI, 0.13–0.60), higher HDL cholesterol level (= 0.06; 95% CI, 0.01–0.12), lower K5 score (= −0.97; 95% CI, −1.64 to −0.31) and lower CVD risk (= −0.77; 95% CI, −1.43 to −0.11). Greater Indigenous participation in caring for country activities is associated with significantly better health. Although the causal direction of these associations requires clarification, our findings suggest that investment in caring for country may be a means to foster sustainable economic development and gains for	Physical Health Risk Factors	Positive	Moderate	Medium	Direct	Consistent	Imprecise	Yes	Undetected
Cairney et al. (2017)	Remote communities in the NT and WA, Australia	2017	A survey of holistic wellbeing for Aboriginal peoples living in remote areas. 842 participants took part in the survey. 2014-2015.	quantitative	842	Positive	Structural equation modelling showed good fit statistics confirming the holistic nature of the Interplay Wellbeing Framework. The strongest direct impacts on wellbeing were 'social and emotional wellbeing' (r = 0.23; p < 0.001), 'English literacy and numeracy' (r = 0.15; p < 0.001), 'Aboriginal literacy' (r = 0.14; p < 0.001), 'substances' (lack thereof; r = 0.13; p = 0.003), 'work' (r = 0.12; p = 0.02) and 'community' (r = 0.08; p = 0.05). Correlation analyses suggested cultural factors have indirect impacts on wellbeing, such as through Aboriginal literacy. All cultural variables correlated highly with each other, and with empowerment and community. Empowerment also correlated highly with all education and work variables. 'Substances' (lack thereof) was linked with positive outcomes across culture, education and work.	Social and emotional wellbeing	Positive	High	Low	Indirect	Consistent	Precise	Yes	Undetected
Campbell et al. (2011)	Remote communities in the NT, Australia	2011	Quantitative analysis. 298 Aboriginal adults classified by their chronic disease status and previously validated measure of self-reported participation in land management activities.	quantitative	298	Positive	Findings indicate significant and substantial primary health care costs savings may be associated with greater participation in land management activities. The estimated savings are in addition to the market and non-market economic benefits of a healthier population and environmental benefits.	Risk factors	Positive	Moderate	Medium	direct	consistent	Imprecise	No	Suspected
Campbell 2015	Australia	2015	A review of biomedical and economic literature on Aboriginal people's involvement in caring for country.	quantitative	unknown	Positive	Economic reasoning for investing in caring for country, due to the influence it may have on the chronic disease burden.	Physical Health	Positive	low	Medium	direct	Consistent	Imprecise	No	Suspected
Chandler and Lalonde (1998)	British Columbia, Canada	1998	Cross-sectional study, ecological study, multiple data sources. Federal and provincial records Six such markers of "cultural continuity" were initially identified, including indications of whether each of BC's 197 distinctive bands, and 23 tribal councils, had: achieved a measure of self-government; litigated for Aboriginal title to traditional lands; accomplished a measure of local control over health, education and policing services; and had created community facilities for the preservation of culture. Summing across these dichotomized measures yielded an overall "Cultural Continuity Index" ranging from 0 to 6.	quantitative	population	Positive	Communities which have are preserving and rehabilitating their own cultures are also those communities in which youth suicide rates are lower. Practices of cultural continuity, including communities that control over the provision of services in their community including over land claims, cultural facilities, health services, education, police/fire and self-government all had lower suicide rates. Communities that had all six factors present all recorded a suicide rate of 0, suicide rates were as high as 137.5 per 100,000 for communities in which none of the factors were present (X^2=10.042, p value < 0.002).	Social and emotional wellbeing	Positive	Moderate	Medium	direct	consistent	Precise	No	Undetected
Chandler et al. 2003	British Columbia, Canada	2003	Population data, ecological study. Additional years of data added to previous study. Six such markers of "cultural continuity" including: achieved a measure of self-government; litigated for Aboriginal title to traditional lands; accomplished a measure of local control over health, education and policing services; and had created community facilities for the preservation of culture.	quantitative	population	Positive	In every case, the youth suicide rate was lower in communities that shared markers of cultural continuity (see Figure 5). One measure of the "protective" effects of these markers is found in the fact that even the least dramatic difference in rates (police/fire) amounted to 24.7 fewer suicides per 100,000.	Social and emotional wellbeing	Positive	High	Low	direct	consistent	Precise	No	Undetected

Chandler and Lalonde (2008)	British Columbia, Canada	2008	Wave two of the data collection from earlier 1998	quantitative	population	Positive	Earlier work is extended by identifying two new cultural continuity markers demonstrating that bands that have achieved a measure of local control over child welfare services, and that are characterised by having elected band councils composed of more than 50 percent women also evidence dramatically lower youth suicide rates. Bands characterised by all of the extended list of Cultural Continuity factors (including factors for 1989, 2003 studies) again showed no level of youth or adult suicide, while those characterized by none of these factors suffer epidemic suicide levels.	Social and emotional wellbeing	Positive	High	Low	direct	consistent	precise	Yes	Undetected
Chandler and Proulx. (2006)	British Columbia, Canada	2006	Ecological study - Test the associations between use of community and individual continuity. Community level risk and protective factors.	quantitative	population	Positive	Personal persistence and persistent peoples, including cultural practises, language, land and community controlled services, have low or absent rates of youth suicide, while individuals and communities lacking a requisite sense of continuity regularly suffer suicides in epidemic numbers.	Social and emotional wellbeing	Positive	Moderate	Low	direct	consistent	precise	no	Undetected
Cidro et al. (2014)	Norway House Cree Nation, Manitoba, Canada	2014	Qualitative study, including 20 interviews and 4 focus groups.	qualitative	20	Positive	Participants highlighted a number of practices including feeding infant's country food (fish soup and masticated moose and rabbit meat), use of traditional medicines, swaddling and other warming methods as key components in the maintenance of baby health and ease of teething. The authors observed that these practices were important not only for infant health, but the continuation of Cree culture and as strengthening intergenerational relationships.	Physical health	Positive	low	High	Direct	Consistent	Imprecise	Yes	Suspected
Colquhoun and Dockery (2012)	Multiple locations, Australia	2012	Qualitative study with interviews from parents (primary care givers) involved in Longitudinal Study of Indigenous Children. 1687 interviews with primary care givers.	qualitative	1687	Positive	Their research found eight themes: culture, strong, family, Aboriginal, proud, sense, traditional and understanding. The authors posited that cultural maintenance and community connections were the overarching factors contributing towards the wellbeing of children in the study.	Social and emotional wellbeing	Positive	low	Medium	Indirect	Unknown	Imprecise	No	Suspected
Cooke et al. 2013	Canada	2013	Quantitative. The 2006 Aboriginal Peoples Survey, Children and Youth component collected data about Metis children, including child height and weight, reported by the person most knowledgeable about the child (PMK).	quantitative	population	Mixed	An estimated 18.5% of Metis boys and 14.4% of girls were obese. Residential schooling was positively associated with obesity generally, but the effects were negative among older girls. Socio-economic factors were related to risk of obesity among Metis children, however the effects may not be the same across age groups and for boys and girls. Authors had expected that language and participation in cultural activities would be protective against obesity, however the general pattern was that those participating more often were more likely to be obese. This is not to suggest that these activities themselves cause obesity. This relationships may be due to other factors not captured in the models, such as family or community characteristics or geography insufficiently controlled by the region and rural/urban indicators. The finding that PMK residential school experience has a significant effect, independent of household income or PMK education, also requires further investigation to understand, as does the finding that PMK residential schooling is a positive predictor of obesity among younger boys and girls, but a negative predictor among older girls. There is some evidence of independent effects of Metis-specific cultural factors, including parental residential schooling, but further investigation and better data are needed to understand these relationships.	Risk factors	Mixed	low	Medium	Direct	Inconsistent	Precise	No	Suspected
Currie et al. (2013)	Edmonton, Alberta, Canada	2013	Cross-sectional study. Surveyed 381 participants in 2010, asking them about their participation in a number of activities over the previous 12 months. The measure were enculturation and acculturation, defined as the degree to which Aboriginal peoples identify with, feel a sense of pride for, and integrate the values and norms of their Aboriginal heritage culture and mainstream culture.	quantitative	381	Positive	The authors found that enculturation (feel a sense of pride, identify with, integrating cultural values and norms) was protective against illicit and prescriptive drug problems, and promoted both resilience and high-self-regard amongst participants.	Risk factors	Positive	low	Medium	Direct	Consistent	Imprecise	Yes	Suspected
Danto and Walsh (2017)	James and Hudson Bay region, Northern Ontario, Canada	2017	Qualitative study of mental health issues in one remote Cree community in Northern Ontario. In-depth interviews with 8 community leaders and mental health providers.	qualitative	8	Positive	The participants identified land control and use, spiritual fulfilment, community support, cultural identity, and traditional practices were key factors in the maintenance of their mental health.	Social and emotional wellbeing	Positive	low	High	Direct	Consistent	Imprecise	No	Suspected

Author	Location	Year	Study	Method	n	Direction	Findings	Domain								
Dockery (2009)	Australia	2009	Population-based cross-sectional study. NATSISS 2002	quantitative	10000+	Positive	The author found evidence that strong cultural attachment (measured through speaking a language, identifies with a homeland, participated in a cultural activity in past 12 months) was positively and significantly correlated with higher rates of employment and improved self-assessed health status. Moderate or weak cultural attachment was found to be correlated with higher rates of arrest in the last 5 years (sig.) and risky alcohol consumption in the past 2 weeks (sig. for moderate). The author concluded that the continuity of traditional Indigenous culture may therefore be a protective factor against risk factors for poor health and wellbeing.	Physical Health Risk Factors	Positive	Moderate	Low	Direct	Consistent	Precise	No	Suspected
Dockery (2011)	Australia	2011	Population-based Cross-sectional study. NATSISS 2008.	quantitative	10000+	Positive	Stronger cultural attachment (measured as participation in cultural activities, identifies with a homeland/country, speaking a language, and participating in hunting and gathering activities) was correlated with improved social and emotional wellbeing. However some factors such as remoteness, membership with the Stolen Generation, and experiences of discrimination, mediated this relationship more strongly than other elements. Indigenous Australians who identify more strongly with their traditional culture are happier and display better mental health, but at the same time experience more psychological stress due to stronger feelings of discrimination.	Social and emotional wellbeing	Positive	Moderate	Low	Direct	Consistent	Precise	No	Suspected
Dudgeon et al. (2016)	Australia	2016	Program evaluation of Aboriginal and Torres Strait Islander Suicide Evaluation Project. Multiple data sources, including qualitative and qualitative data.	Mixed	population	Positive	Highlights of suicide prevention initiatives in place supporting Indigenous languages, storytelling, and mentoring by Elders, among other practices. The successful factors for Indigenous suicide prevention, including programs that: build identity, address social and emotional wellbeing, healing, culture taught in schools, connecting to country/elders, cultural frameworks, culturally safe and appropriate services and treatment, among other not cultural specific factors.	Social and emotional wellbeing	Positive	Moderate	Low	Indirect	Consistent	Precise	Yes	Suspected
Durkalec et al. (2015)	Nain, Nunatsiavut, Canada	2015	Case study, participatory, collaborative approach with Inuit peoples from Canada. This included focus groups (n=9) and interviews (n=22) with participants.	qualitative	22	Positive	Appreciation of place was critical for understanding the full range of health influences of sea ice use for Inuit. Negative physical health impacts were reported on less frequently than positive health benefits of sea ice use, which were predominantly related to mental/emotional, spiritual, social, and cultural health. While sea ice users reported increases in negative physical health impacts such as injuries and stress related to changing environmental conditions, the less tangible climate change impacts related to losses of health benefits and disruptions to place meanings and place attachment may be more significant.	Social and emotional wellbeing	Positive	Moderate	Medium	Direct	Consistent	Imprecise	Yes	Suspected
Dyck et al. (2015)	Saskatchewan, Canada	2015	Cross-sectional study that surveyed 874 First Nations, Metis and Inuit people living in two First Nations communities.	quantitative	874	Mixed	Diabetes prevalence was 15.8 % among women and 9.7 % among men. In the final models, increasing age and adiposity were significant risk factors for diabetes (e.g. OR 8.72 [95 % CI 4.62; 16.46] for those 50+, and OR 8.97 [95 % CI 3.58; 22.52] for BMI 30+) as was spending most time on-reserve. Residential school attendance and cultural disruption was not predictive of diabetes. Higher levels of discrimination were related to a lower prevalence of diabetes, compared to those who experienced little discrimination (2.4 % versus 13.6 %; OR 0.11 [95 % CI 0.02; 0.50]). Those experiencing the most discrimination were significantly more likely to be married and to have higher incomes.	Physical Health	Mixed	Low	Medium	Direct	Inconsistent	Precise	No	Suspected
Fiedeldey-Van Dijk et al. (2017)	Various locations, Canada	2017	Longitudinal survey piloted with 177 participants across 12 alcohol and drug abuse treatment centres in Canada. The survey was undertaken at 3 points during their treatment.	quantitative	177	Positive	A significant positive relationship between use of cultural intervention practises and improved client wellbeing.	Social and emotional wellbeing	Positive	Moderate	Low	In-direct	Consistent	Imprecise	Yes	Undetected
Freeman et al. (2016)	Pine Ridge reservation, South Dakota	2016	Mixed method study, including qualitative (n=8 families) and quantitative (n=27 families)	Mixed	27	Positive	The results demonstrated a strong, significant, positive relationship between participation in a variety of healing practices and improved individual and family functioning.	Social and emotional wellbeing	Positive	Moderate	Medium	Direct	Consistent	Precise	Yes	Undetected
Galloway et al. (2015)	Canada	2015	Interviews and a 24-h dietary recall were administered to 805 men and 1292 women from Inuit regions in the Canadian Arctic. Logistic regression was used to assess the impact of socioeconomic status (SES) on diet quality indicators.	quantitative	2000	Mixed	Age was positively associated with traditional food (TF) consumption and greater energy from protein but negatively associated with total energy and fibre intake. Associations between SES and diet quality differed considerably between men and women and there was considerable regional variability in diet quality measures. Age and cultural variables were significant predictors of diet quality in logistic regression. Increased age and use of the Inuit language in the home were the most significant predictors of TF consumption. Findings are consistent with studies reporting a nutrition transition in circumpolar Inuit. We found considerable variability in diet quality and complex interaction between SES and cultural variables producing mixed effects that differ by age and gender.	Risk factors	Mixed	Low	Low	Indirect	Consistent	Imprecise	No	Suspected

Study	Location	Year	Aim/Method	Method	N	Direction	Findings	Outcome								
George et al. (2017)	Ontario, Canada	2017	Participants (n=613) from two First Nations communities in Ontario, Canada, were recruited for the survey.	quantitative	613	Positive	15% of participants used both traditional medicines and healers, 15% used traditional medicines only, 3% used a traditional healer only, and 63% did not use either. Of those who did not use traditional healing practices, 51% reported that they would like to use them. Use was more common among men, older people, and those with more than high school education. Those who used traditional healing practices were found to have a stronger First Nations identity, better self-reported spiritual health, higher scores on historical loss and historical loss symptoms and higher levels of anxiety compared with people who did not use them. Common reasons for not using traditional practices were: not knowing enough about them, not knowing how to access or where to access them. These findings may be useful for promoting the use of traditional healing practices for the purpose of improving the health of First Nations people.	Social and emotional wellbeing	Positive	Moderate	Low	Direct	Consistent	Precise	No	Suspected
Goudreau et al. (2008)	Ontario, Canada	2008	Indigenous research methodology, Aboriginal Women Hand Drumming were co-researchers and participants in the study. Qualitative study. Participants. Examined how culture and social support networks are key determinants of Aboriginal women's health.	qualitative	unknown	Positive	Results of the qualitative analysis show that the Aboriginal women's involvement in hand-drumming circles has many health promoting benefits and builds on strengths already existent within their community. Through their experiences with hand drumming, the women reported gaining a voice and a sense of holistic healing, empowerment, renewal, strength and Mino-Bimaadiziwin ("good life"). These findings are consistent with evolving Aboriginal perspectives on health promotion.	Social and emotional wellbeing	Positive	Low	Medium	Indirect	Inconsistent	Imprecise	No	Suspected
Graham and Leeseberg-Stamler (2010)	Thunderchild First Nation, Saskatchewan	2010	This paper aimed to understand Plains Cree definitions of health by interviewing 14 band members of the Thunderchild First Nation.	qualitative	14	Positive	Their responses were organised into four categories coinciding with the Medicine Wheel: physical, mental (intellectual), emotional and spiritual. Environmental, economic and political factors were described as having the biggest influence on participants' health and health behaviours. Cultural factors such as use of Sweat Lodges and knowledge of traditional languages were reported to reinforce good health and wellbeing.	Physical Health	Positive	Low	High	Direct	Inconsistent	Imprecise	Yes	Suspected
Graham and Martin (2016)	Thunderchild First Nation, Saskatchewan	2016	The authors interviewed 15 people in a narrative format, asking them to share their experiences about what has allowed, or would allow them to live a good life.	qualitative	15	Positive	The participants responses were organised into a number of themes including spiritual beliefs and cultural practices, tānisīsi wāpahtaman pimātisiwin (worldview), and ēkwa ōhi kikwaya piko ka-ispayiki kīspin ka-nohtē-miyo-mahcihoyān (these are the things that need to happen if I want to be healthy).Participants in this study described holistic health determinants that correlate with the medicine wheel, and described these holistic health determinants as making a positive difference to their mental health and as necessary for them to obtain optimal mental health and well-being. Mental health interventions should be linked to Indigenous culture; utilize a holistic approach that takes physical, emotional, mental, and spiritual well-being into consideration; and address the existing mental health disparities using the determinants of health as a framework.	Social and emotional wellbeing	Positive	Low	High	Direct	Consistent	Imprecise	Yes	Suspected
Hallett, Chandler and Lalonde (2007)	British Columbia, Canada	2007	Test the associations between use of language continuity and suicide in band. This paper draws on a number of aggregate data reported in previous articles (Chandler and Lalonde, 1998; Norris and MacCon, 2004).	quantitative	population	Positive	The authors found that there was an inverse, negative relationship between youth suicide and language use. In particular, the use of traditional language by 50% or more of the community resulted in very low or no youth suicides over the 6 year period examined. Communities where less than 50% of the population spoke a traditional language demonstrated a youth suicide rate six times higher than those where language use was more common.	Social and emotional wellbeing	Positive	High	Low	Direct	Consistent	Precise	No	Undetected
Hamalainen et al. (2017)	Norway	2017	This study explores the relationship between Yoik, the traditional vocal music tradition of Sami peoples, and individual wellbeing. Exploration, qualitative interviews with 13 participants.	qualitative	13	Positive	Yoik (traditional vocal music) function as a culturally-appropriate form of emotional expression and management. The authors compared this effect to that of music therapy and posited that it would be beneficial in health care practice and education.	Social and emotional wellbeing	Positive	Low	High	Direct	Consistent	Imprecise	No	Suspected
Healey (2014)	Nunavut, Canada	2014	This paper examines parent-child relationships and discussions of sexual health and behaviour. The author interviewed twenty Inuit parents of teenage children from three communities in Nunavut.	qualitative	20	Positive	The participants spoke how transitions from traditional nomadic lifestyles to settlements by their parents had influenced their relationships with their children. The majority of the parents also spoke about how their histories of sexual abuse formed a barrier to open communication about sex. The role of Elders in supporting conservations about sexual health was also highlighted, and served to strengthen kinship ties strained by the ongoing impacts of colonisation.	Risk factors Physical health	Positive	Low	High	Direct	Consistent	Imprecise	No	Suspected
Hinton et al. (2015)	2 communities in NT	2015	Using snowball and purposive sampling, 27 service providers and community members with knowledge of the local context and the diverse needs of those at risk of depression were interviewed. 30% of participants were Indigenous.	qualitative	27	Positive	Mental health and well-being strongly linked to cultural identity. Key identified components to interventions were the health centre, visiting and community-based services, and local community resources including elders, cultural activities and families.	Social and emotional wellbeing	Positive	Low	High	Direct	Inconsistent	Imprecise	No	Suspected

Study	Location	Year	Description	Method	n	Finding	Results	Category								
Howell et al. (2016)	Vancouver, Canada	2016	This paper examines parent-child relationships and discussions of sexual health and behaviour. The author interviewed twenty Inuit parents of teenage children from three communities in Nunavut. A total of 35 participants attended the healing circles, which were administered once per week for seven weeks.	qualitative	35	Positive	Participants experienced a range of short and intermediate term improvements in their health and wellbeing, including increased understanding of traditional foods and medicines and spiritual health and wellness.	Social and emotional wellbeing	Positive	Moderate	Medium	Direct	Consistent	Imprecise	Yes	Undetected
Johnston and Thomas (2008)	Northern Territory, Australia	2008	Semi-structured interviews with a purposive sample of 25 Indigenous community members in two remote communities in the Northern Territory and 13 health staff.	qualitative	38	Positive	The results indicate that there is a complex interplay of historical, social, cultural, psychological and physiological factors which influence the smoking behaviours of Indigenous adults in these communities. In particular, the results signal the importance of the family and kin relations in determining smoking behaviours. While most community participants were influenced by family to initiate and continue to smoke, the health and wellbeing of the family was also cited as a key driver of quit attempts. The results highlight the importance of attending to social and cultural context when designing tobacco control programs for this population. Specifically, this research supports the development of family-centred tobacco control interventions alongside wider policy initiatives to counter the normalisation of smoking and assist individuals to quit.	Risk factors	Positive	low	Medium	Indirect	Unknown	Precise	No	Suspected
Kerpan et al. (2015)	Saskatchewan, Canada	2015	The paper is a qualitative study aimed at examining the determinants of diet for urban Aboriginal youth in Canada, with a specific emphasis on culture. The study involved 15 students aged 14-21 at an Aboriginal high school in Canada.	qualitative	15	Positive	The results showed cultural influences such as traditional food, family and food sharing had a positive influence on health-eating habits amongst Aboriginal youth.	Risk factors	Positive	Low	High	Direct	Unknown	Imprecise	Yes	Suspected
Kral et al. (2011)	Nunavut, Canada	2011	A qualitative study looking at youth suicide and community wellbeing amongst Inuit communities in the Canadian Arctic. 50 Inuit between the ages of 14-94 were interviewed, and 66 students completed questionnaires asking the same questions.	qualitative	50	Positive	The most prominent themes that were exposed related to the importance of family; talking and communication; and cultural values and practices. All these themes had a positive relationship with health and wellbeing.	Physical Health Social and emotional wellbeing	Positive	Moderate	Medium	Direct	Unknown	Imprecise	Yes	Suspected
Lewis and Allen (2017)	Alaska, US	2017	Descriptive study of motivating and maintenance factors for sobriety among older Alaskan Native adult participants (age 50+) from across Alaska. Ten life history narratives of Alaska Native older adults, representing Alutiiq, Athabascan, Tlingit, Yup'ik/Cup'ik Eskimos. Sample were explored using thematic analysis.	quantitative	10	Positive	AN older adults are motivated to abstain from, or to quit drinking alcohol through spirituality, family influence, role socialization and others' role modelling, and a desire to engage in indigenous cultural generative activities with their family and community. A desire to pass on their accumulated wisdom to a younger generation through engagement and sharing of culturally grounded activities and values, or indigenous cultural generativity, is a central unifying motivational and maintenance factor for sobriety. The implications of this research indicates that family, role expectations and socialization, desire for community and culture engagement, and spirituality are central features to both AN Elders' understanding of sobriety, and more broadly, to their successful aging.	Social and emotional wellbeing Risk factors	Positive	Low	High	Direct	Unknown	Imprecise	No	Suspected
Lowell et al. (2015)	Northern Territory, Australia	2015	A qualitative evaluation of the Strong Women, Strong Babies, Strong Cultural Program (the Program) in remote communities in the Northern Territory. The Program aimed to promote the value of cultural knowledge senior women can contribute through participation in activities to improve maternal and child health. A series of semi-structured, in-depth interviews with 76 participants were conducted.	qualitative	76	Positive	Important cultural practices such as 'smoking ceremonies' for mother and baby, the role of senior women in the birthing process and having pregnant women exercise by 'going out' on country away from the local health centre to find bush tucker and maintain cultural knowledge and practice. The study found that while Aboriginal knowledge and practice was a fundamental component of the Program, there were considerable variations across time and location as well as barriers regarding the inclusion of these cultural dimensions in practice.	Physical health	Mixed	Moderate	Medium	Direct	Unknown	Imprecise	Yes	Undetected
MacDonald et al. (2015)	Nunatsiavut, Labrador, Canada	2015	A qualitative analysis of 17 Inuit youths in the Canadian Arctic that outlined a positive relationship between cultural connectedness and mental health and wellbeing.	qualitative	17	Positive	Being on the land, connecting to Inuit culture, strong communities and familial ties were all protective factors that influenced good health and wellbeing.	Social and emotional wellbeing	Positive	Moderate	Medium	Direct	Consistent	Imprecise	Yes	Undetected

Study	Country	Year	Description	Method	Sample	Direction	Findings	Domain								
Morrison et al. (2014)	Canada	2014	Quantitative analysis - descriptive and logistic regression to estimate the odds of hospitalization and delay in time-to hospitalization for on-reserve and off-reserve FN populations	quantitative	population	Inverse	On-reserve First Nations individuals experienced a longer delay between infection and hospitalization compared to off-reserve First Nation individuals (p value 0.001). The odds of hospitalization were twice as high for FN people living on-reserve as compared to off-reserve (odds ratio¼2.34; 95% CI: 1.16–4.73). Given the independent effect of on-reserve residency, higher disease burden among FN people cannot be attributed entirely to limited healthcare access due to remoteness from urban centres.	Physical health	Negative	Low	High	Direct	Unknown	Imprecise	No	Suspected
Nystad et al. (2014)	Norway	2014	Qualitative study looking at community resilience factors among Indigenous Sami youth in a northern Norwegian community. 22 participants were involved in the interviews.	qualitative	22	Positive	The study found that these cultural factors, land, language, ecological knowledge, family relationships and networks, seemed to play a significant role in community resilience. Interconnectedness among the community members and environment seemed to promote resilience and well-being.	Social and emotional wellbeing	Positive	Moderate	Medium	In-direct	Consistent	Imprecise	Yes	Undetected
Oster et al. (2014)	Alberta, Canada	2014	A mixed-methods study of First Nations peoples in Alberta, Canada, looking at the association between cultural continuity factors, self-determination and diabetes prevalence.	Mixed methods	population	Positive	The study found that culture (including language) and self-determination were very important factors contributing to good health and wellbeing. Crude diabetes prevalence varied dramatically among First Nations with values as low as 1.2% and as high as 18.3%. Those First Nations that appeared to have more cultural continuity (measured by traditional Indigenous language knowledge) had significantly lower diabetes prevalence after adjustment for socio-economic factors (p =0.007).	Physical health	Positive	High	Medium	Direct	Consistent	Imprecise	Yes	Undetected
Pearce et al. (2015)	British Columbia, Canada	2015	A quantitative survey of 191 young Indigenous people using illicit drugs in three Canadian cities and how cultural determinants act as protective factors against severe health outcomes.	quantitative	191	Positive	Cultural factors such as having a family who had often or always lived by traditional culture and spoken traditional language were associated with higher resilience scores. And although not statistically significant, it was found that young people who participated in traditional ceremonies also had higher mean scores compared to those who didn't.	Social and emotional wellbeing	Positive	High	Medium	In-direct	Consistent	Precise	Yes	Undetected
Phipps & Slater (2010)	Australia	2010	Over 100 with Aboriginal Australians interviews were undertaken at three different festivals: Garma Festival, The Dreaming Festival, and three locations of the Croc Festival.	Mixed	100	Positive	The key recommendations stemming from the report were to increase funding to the Indigenous festivals sector across all levels of government; work with Indigenous leadership; establish an Indigenous-directed agency to coordinate and fund the sector appropriately; government-funded support for the appointment of year-long Indigenous festival coordinators for key festivals; acknowledgement that the philanthropic and NGO sectors play a key role in the development and sustainability of Indigenous cultural festival delivery and programs and can continue to do so.	Social and emotional wellbeing	Positive	Moderate	Medium	Direct	Unknown	Imprecise	Yes	Undetected
Priest et al. (2012)	Melbourne, Australia	2012	Article that outlines a holistic conceptual framework for Aboriginal child health and wellbeing in an urban setting. 25 qualitative interviews were undertaken with care-givers of Aboriginal children to develop this framework based on four main themes: Strong culture; Strong Child; Strong Environment; and Strengths and Challenges.	qualitative	25	Positive	A conceptual framework of Aboriginal child health and wellbeing in an urban setting was developed comprising four main themes: Strong Culture; Strong Child; Strong Environment; and Strengths and Challenges. Aboriginal conceptions of culture were considered central to Aboriginal child health and wellbeing. Themes of cultural including connection to country, ceremony, art and artefacts, Language, Identity, gender and age roles, kinship and family connection, Respect for Elders and connected to community.	Social and emotional wellbeing	Positive	Moderate	Medium	Direct	Unknown	Imprecise	Yes	Undetected
Reilly et al. (2008)	Victoria, Australia	2008	Using a participatory action research design, the researchers interviewed 10 women and 20 men aged 18-62 years – 90% of whom identified as Indigenous with the other 10% having close ties to the community – about their health and wellbeing	qualitative	30	Positive	The results highlighted a number of themes that affected health and wellbeing including: Aboriginal history as a source of strength and triumph as well as grief and trauma in the face of the effects of colonisation; racism and the devaluing of Aboriginal identity and culture; the importance of community support, connection to country and self-determination.	Social and emotional wellbeing	Positive	Moderate	Medium	Direct	Consistent	Imprecise	Yes	Undetected
Ryan et al. (2017)	Canada	2017	Data from 5810 participants in the 2006 Aboriginal. Peoples Survey and Métis Supplement was used to analyse the relationships between leisure time physical activity (LTPA) and cultural factors including speaking an Aboriginal language, being a member of or attending Metis cultural activity (e.g. festivals) and spirituality.	quantitative	5810	Mixed	The researchers found that attending a cultural event in the last year, a high level of spirituality was positively correlated with leisure time and physical activity. Speaking a language and being a member of a cultural activity were not independently correlation with leisure time and physical activity.	Risk factors	Mixed	Moderate	Medium	Direct	Consistent	Precise	No	Undetected

Study	Location	Year	Description	Type	N	Direction	Findings	Category								
Ryan et al. (2016)	Canada	2016	Using data from the 2012 Canadian Aboriginal Peoples Survey, the researchers examined the relationship between heavy drinking and several culturally specific variables for 14,410 First Nations and Metis peoples aged 15 years and older. These variables included language use, whether the participant had hunted, fished or trapped, was involved in making traditional arts or crafts and whether they, or a family member had attended a residential school. T	quantitative	14410	Positive	The results indicated that although there was heavier alcohol use amongst First Nations and Metis peoples who hunted, fished or trapped (a trend associated with the broader US population who hunt and fish); those who were involved in traditional arts and crafts were less likely to drink heavily. The authors concluded that any efforts aimed at reducing heavy drinking in these populations may benefit from considering culturally specific factors, alongside demographic variables and co-occurring health-risk behaviours.	Risk factors	Positive	Moderate	Medium	Direct	Unknown	Precise	Yes	Undetected
Ryan et al. (2015)	Canada	2015	Data from 6,610 adult Metis aged 18 years and older who participated in the 2006 Aboriginal Peoples Survey and Metis supplement were used to analyse the relationship between current smoking and culturally specific factors. These variables included spirituality, knowledge of an Aboriginal language, membership of a Metis organisation and attendance at cultural events.	quantitative	6610	Positive	Of the 39.9% of participants who were current smokers, those who reported high levels of spirituality, were less likely to smoke. The authors concluded that culturally specific factors such as spirituality and Aboriginal language should be considered alongside demographic, socio-economic and health-related factors when interventions are aimed at reducing smoking prevalence amongst Metis peoples.	Risk factors	Positive	Moderate	Medium	Direct	Unknown	Precise	Yes	Undetected
Richmond and Ross (2008)	First Nation and Inuit communities, Canada	2008	Qualitative - narrative analysis of interviews with 26 community Health representatives	qualitative	26	Positive	The research identified six health determinants: balance, life control, education, material resources, social resources, and environmental/ cultural connections. Community Health Representatives articulated the role of the physical environment for health as inseparable from that of their cultures. Environmental dispossession was defined as a process with negative consequences for health, particularly in the social environment. Health research should focus on understanding linkages between environmental dispossession, cultural identity, and the social determinants of health.	Social and emotional wellbeing	Positive	Moderate	Medium	Indirect	Consistent	Imprecise	Yes	Suspected
Rotenburg (2016)	Canada	2016	Cross-sectional population survey of First National population aged 15 and older.	qualitative	population	Negative	Results did not demonstrate a significant association between Aboriginal language speaking abilities and any of the three negative health outcome variables analysed after controlling for other factors. After controlling for various social factors, results also suggest that those who participated in a traditional activity were more likely to have a chronic condition.	Physical Health	Negative	Low	Medium	Direct	Inconsistent	Imprecise	No	Undetected
Senese and Wilson (2013)	Canada	2013	36 participants who identified as First Nations, Metis or Inuit were interviewed in this study which was aimed at understanding the relationship between Indigenous rights and urbanisation and its association with the health of urban Indigenous peoples living in Toronto, Canada.	quantitative	36	Positive	Despite living in this urban space, the majority of participants believed connecting with their Aboriginal culture and identity was very important to them and had positive impacts on their health. Conversely, some participants also described ways in which they felt a disrespect of their culture and identity in the mainstream community impacted their health. For example, experiences of discrimination, struggling to be respected, government denial of Aboriginal culture and broken treaties and agreements, had a negative impact on their health. The study suggested that 'a strong sense of Aboriginal identity and safe places within the city to engage with one's culture are not only positive for adjustment in the city, but may also be beneficial for health.'	Undetermined	Positive	Moderate	Medium	Direct	Consistent	Imprecise	Yes	Undetected
Skerrett et al. (2017)	Brisbane, Australia	2017	This paper reports on the implementation and follow-up of a culturally-tailored suicide-prevention program targeted at Aboriginal and Torres Strait Islander youth (aged 11-21 years). Four one-hour sessions per week were attended by 61 youth, with 49 of these participating in a follow-up 2 months later.	quantitative	61	Positive	The researchers report a number of non-significant positive changes in participants' wellbeing at different stages of the program and at follow-up, though these changes were not always consistent or enduring. There was a significant decrease in reported suicidal ideation after the program concluded, but this factor was higher again at follow-up.	Social and emotional wellbeing	Positive	Moderate	High	Direct	Inconsistent	Precise	Yes	Suspected
Spillane et al. (2015)	Canada	2015	A total of 211 participants completed a questionnaire aimed at gathering data on alcohol misuse amongst the First Nations people and help-seeking behaviours.	quantitative	211	Positive	The results were consistent with other studies that found a pattern of heavy, episodic drinking amongst Indigenous adults. Those that indicated a stronger cultural identity showed both a greater perceived need for help with drinking and greater intentions to stop or reduce alcohol intake. The authors suggest that cultural identity working as a protective factor and concluded that the results 'highlight the importance of incorporating cultural identity into prevention and treatment efforts of alcohol and highlight the importance of taking an individual's cultural identity into consideration when treatment planning.'	Risk factors	Positive	Moderate	Medium	Direct	Unknown	Precise	Yes	Undetected
Tedmanson and Guerin (2011)	APY, Australia	2011	Collaborative project, including large community meetings (60+ people) with Anangu people from APY Lands.	qualitative	50	Positive	Social enterprise activities can support concomitant mental health and social well-being in communities. It also builds social capital that supports social well-being, social functioning and emotional well-being in individuals and the communities in which the enterprise operates.	Social and emotional wellbeing	Positive	Low	High	In-direct	Unknown	Imprecise	Yes	Undetected

Study	Location	Year	Description	Method	n	Direction	Findings	Outcome	Direction	Risk of bias		Directness	Consistency	Precision		
Thompson et al. (2013)	Northern Territory, Australia	2013	This qualitative study involved interviewing 23 Aboriginal community members from two remote Northern Territory communities, to ascertain local perspectives, experiences and meanings of physical activity. Findings from the study showed that physical activities associated with local natural and cultural resource management and cultural practices had a number of advantages.	qualitative	23	Positive	In this cultural context the meaning of physical activity is embedded in socially significant and economically necessary physical engagement with the environment. Participants described physical activities associated with Indigenous natural and cultural resource management, customary spaces, seasonal timing and traditional education as creating and protecting health. These activities also important for social organisation, education and employment that help to build and maintain relationships, wealth, resources and the environment.. The authors conclude by advocating for a greater understanding of Indigenous perspectives on physical activity, including support physical activities that occur on country or in caring for country.	Risk factors	Positive	Moderate	Medium	Direct	Unknown	Imprecise	Yes	Undetected
Thorpe et al. (2014)	Victoria, Australia	2014	A qualitative study that examined the role Aboriginal sporting organisations played in promoting the wellbeing of young Aboriginal men. A combination of semi-structured interviews and focus groups were undertaken with 9 current and former Aboriginal players of the Fitzroy Stars Football club.	qualitative	9	Positive	A number of recurrent themes emerged from the data analysis including community connection, cultural values and identity, health, responsibilities, racism and discrimination. The results showed that aside from the physical benefits to health that were derived from participating in a sport, it was the social, community and cultural aspects of participating that were seen to be just as important to individual health.	Risk factors Physical health	Positive	Moderate	Medium	Direct	Consistent	Imprecise	Yes	Undetected
Tsourtos et al. (2015)	Adelaide, South Australia	2015	31 Aboriginal and Torres Strait Islander adults were interviewed and included questions about their smoking status, social status, social environment and their life experiences.	qualitative	31	Positive	Among the variety of methods used by non-smokers to cope with stress, some were directly related to Indigenous culture including returning to country. The authors encouraged the use of resilient strategies such as this to cope with stress and not smoking.	Risk factors	Positive	Low	High	Direct	Unknown	Imprecise	Yes	Undetected
Varcoe et al. (2017)	Vancouver, Canada	2017	This research reports on the development and piloting of a culturally-specific intervention for Indigenous Canadian women who had experienced intimate partner violence. Twenty one women participated in a pilot of the iHEAL program over 6 months	qualitative	21	Mixed	The results indicated slightly improved health and wellbeing outcomes across a range of factors including symptoms of depression and PTSD, greater personal and interpersonal agency and improved quality of life. However there was also reporting of greater pain disability and intensity after the program concluded.	Social and emotional wellbeing	Mixed	Low	High	Direct	Inconsistent	Precise	Yes	Suspected
Wagemakers and Moore (2006)	Alberta, Canada	2006	This pilot study undertaken in Alberta, Canada, was aimed at analysing the impact the sweat lodge ceremony had on a person's wellbeing. Of the 42 participants, 59% were Indigenous, with the remainder being non-Indigenous.	Mixed	42	Mixed	Data collected pre and post ceremony found no changes to physical health, but found some in spiritual and emotional well-being. The authors recommended the study be replicated on a broader scale using a larger sample and multiple sweat lodge sites so the findings could be generalised beyond the study population.	Social and emotional wellbeing Physical health	Mixed	Low	High	Direct	Unknown	Imprecise	Yes	Undetected
Warbrick et al. (2016)	New Zealand	2016	This study analysed the perspectives of 18 sedentary, 'overweight' Maori males ranging from 28 to 72 years of age and their views on physical activity and exercise.	qualitative	18	Positive	Results from the study found that sedentary Maori men understand the importance of physical activity but find it difficult given other priorities such as family and community commitments which are valued greatly in Maori culture. The authors concluded that a Maori perspective on physical activity – versus the common Western perspective – needs to be considered when promoting physical activity or designing health initiatives for indigenous and minority male groups.	Risk factors	Positive	Moderate	Medium	Direct	Unknown	Imprecise	Yes	Undetected
Waterworth et al. (2015)	Western Australia	2015	This study interviewed 29 participants to gauge their views on what factors influence health behaviour within Indigenous groups in Western Australia. The participants were a mixture of male (n=13) and females (n=16), Indigenous (n=13) and non-Indigenous (n=16) support workers who were all experts in their fields which included education, community development, health, counselling and community management.	qualitative	29	Mixed	Participants considered the health behaviours of the Indigenous people were influenced by a number of factors such as culture, social networks, history, racism, socioeconomic disadvantage and psychological distress. Culture had a complex relationship with these other factors that both positively and negatively influenced health behaviours. Indigenous culture was seen as strongly empowering and a capacity building force within communities, but was hindered by racism and discrimination from the broader Australian community. The authors believe that educating the wider Australian community of the importance of Indigenous culture as well as Indigenous community driven efforts to improve health behaviours will ultimately reduce inequities and empower communities.	Risk factors	Mixed	Moderate	Medium	Direct	Consistent	Imprecise	Yes	Undetected
Wham et al. (2015)	New Zealand	2015	67 Maori aged 75-79 years were recruited for a study aimed at examining the factors associated with nutrition risk among older Maori	quantitative	67	Positive	The results of the study found that cultural factors such as language and cultural identity, alongside access to traditional Maori foods, were associated with lower nutrition risk amongst older Maori.	Risk factors	Positive	Moderate	Medium	Direct	Unknown	Imprecise	Yes	Undetected

Study	Location	Year	Description	Method	N	Direction	Findings	Outcome								
Wilson and Rosenburg 2002	Canada	2002	1991 Aboriginal Peoples Survey - cross sectional study.	quantitative	17	Mixed	Results from the analyses undertaken show that many of the determinants of health identified in analyses of the Canadian population in general hold for First Nations peoples. While only a few statistically significant relationships between health status and traditional activities were identified, taking into account the limitations of the APS and other conceptual issues, authors argued that there is the potential to move from the analysis of traditional activities to a more nuanced analysis of cultural attachment.	Physical health	Mixed	Moderate	High	Direct	Inconsistent	Imprecise	No	Suspected
Wilson 2003	Ontario, Canada	2003	Qualitative, 17 in-depth interviews with Anishinabek	qualitative	17	Positive	The findings from the interviews demonstrate that culture is an important component of the link between health and place (environment, land). First Nations peoples contend that the relationship they have with the land shapes the cultural, spiritual, emotional, physical and social well-being of individuals and communities.	Social and emotional wellbeing	Positive	low	High	Indirect	Consistent	Imprecise	No	Suspected
Yap and Yu (2016)	Broome, Western Australia	2016	156 Yawuru men and women participated in the Yawuru Wellbeing Survey. Using both qualitative and quantitative measures, the collected data was fed into a report aimed at providing a baseline to design and implement programs to improve wellbeing for Yawuru people. It also works as an important tool for monitoring wellbeing over time based on measures identified by Yawuru people.	quantitative	156	Positive	The key findings from the report for maintaining Yawuru wellbeing included: the importance of family connectedness; the wellbeing of community; language maintenance; connection to culture and country and intergenerational transmission of knowledge; self-determination and being free of discrimination; as well as having access to meaningful employment, education and being financially sufficient.	Social and emotional wellbeing	Positive	High	Low	Direct	Consistent	Precise	Yes	Undetected
Ziabakhsh et al. (2016)	Vancouver, Canada	2016	Evaluation. Eight women who identified as First Nations, Inuit, and/or Métis participated in an 8-week program from Oct-Nov 2012 which focused on creating a culturally appropriate model for promoting cardiovascular health.	qualitative	8	Positive	This report details the development, implementation and outcomes of the Seven Sisters Healthy Heart Pilot Project, heart health program. Indigenous processes, such as a Talking Circle, combined with Indigenous knowledge/content were integrated into the pilot program. Participants reported thinking more 'healthfully' as a result of the project, and were making small changes to their lifestyles. The authors reflected that the cultural focus of the project was integral to its success and wellbeing of participants.	Risk factors	Positive	Low	High	Direct	Unknown	Imprecise	Yes	Suspected

Complete list of references of publications included in the review

(Allen et al., 2017; Anderson and Kowal, 2012; Bagelman et al., 2016; Bals et al., 2011; Biddle and Crawford, 2017; Biddle and Swee, 2012; Browne-Yung et al., 2013; Burgess et al., 2008; Burgess et al., 2009; Cairney et al., 2017; Campbell, 2015; Chandler et al., 2003; Chandler and Lalonde, 1998; Chandler and Lalonde, 2008; Chandler and Proulx, 2006; Cidro et al., 2014; Colquhoun and Dockery, 2012; Cooke et al., 2013; Currie et al., 2013; Danto and Walsh, 2017; Dockery, 2009, 2011; Dudgeon et al., 2016; Durkalec et al., 2015; Dyck et al., 2015; Fiedeldey-Van Dijk et al., 2017; Freeman et al., 2016; Galloway et al., 2015; George et al., 2017; Goudreau et al., 2008; Graham, 2010; Graham and Martin, 2016; Hallett et al., 2007; Hamalainen et al., 2017; Healey, 2014; Hinton et al., 2015; Howell et al., 2016; Johnston and Thomas, 2008; Kerpan et al., 2015; Kral et al., 2011; Lewis and Allen, 2017; Lowell et al., 2015; MacDonald et al., 2015; Morrison et al., 2014; Nystad et al., 2014; Oster et al., 2014; Pearce et al., 2015; Phipps and Slater, 2010; Priest et al., 2012; Reilly et al., 2008; Richmond and Ross, 2008; Rotenburg, 2016; Ryan et al., 2017; Ryan et al., 2016; Ryan et al., 2015; Senese and Wilson, 2013; Skerrett et al., 2017; Spillane et al., 2015; Tedmanson and Guerin, 2011; Thompson et al., 2013; Thorpe et al., 2014; Tsourtos et al., 2015; Varcoe et al., 2017; Wagemakers Schiff and Moore, 2006; Warbrick et al., 2016; Waterworth et al., 2015; Wham et al., 2015; Wilson, 2003; Wilson and Rosenberg, 2002; Yap and Yu, 2016; Ziabakhsh et al., 2016)(Campbell et al., 2011)

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