A Matter of Life or Death: a review of the evidence supporting an association between social capital and rates of suicide in Canadian Inuit communities

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Abstract

Canadian Inuit include ~55,000 inhabitants in parts of Labrador, Quebec, Nunavut, and the Northwest Territories. The rate of suicide in these communities is 135 for every 100 000 individuals - 12 times the Canadian average and one of the highest in the world.[1] This structured review explores the existing evidence supporting an association between social capital and rates of suicide amongst Canadian Inuit. Initially, a search strategy was developed using the terms "suicide", and "Inuit" in the PubMed (Medline), Scopus, and Web of Science databases. The final search procured nine relevant references. The research emphasizes suicide as a stressor within Inuit population. Social capital contributes to risk factors including, unemployment, being single, legal problems, abuse history, and a record of mental illness. The mean age of suicide is 23.41 with 82.5% being male[2]. Within individuals 15-24, 45% have had suicidal thoughts in their lifetime, and 15% had attempted suicide in the past year[3]. Those experiencing the "good life" (family and traditional culture) report higher levels of social support – a protective factor for suicide. Canada is entering a collaborative relationship with Inuit to prioritize resilience, empowerment, and suicide prevention. Crisis lines have been implemented to resolve immediate distress, while other Inuit led programs have the potential as long term solutions. This inquiry allows for a better grasp of suicidal behavior, rationale, and the emerging trajectory of suicide prevention.

Background

The Inuit are a group of ~55,000 peoples that have resided in the Canadian Arctic for ~1,000 years.[2] They inhabit 53 communities across (1) Inuvialuit in the Northwest Territories, (2) Nunavut, (3) Nunavik in northern Quebec, and (4) Nunatsiavut in northern Labrador.[2] Before the mass social disruption of their livelihood, suicide was almost unheard of aside from altruistic self sacrifice of the elderly or terminally ill.[2] The World Health Organization reports that worldwide, suicide is responsible for almost 1 million death annually.[4] Further research suggests that individuals of Aboriginal decent, and specifically Inuit membership, make up the majority of these deaths. The Canadian Inuit suicide rate is 135/100 000 individuals, which is 12 times the Canadian average and amongst the highest in the world.[1] Within individuals 15-24 specifically, rates have been reported as high as 295/100,000.[1] The Oxford English Dictionary defines social capital as "The networks of relationships among people who live and work in a particular society, enabling that society to function effectively."[5] Social capital in Inuit communities has been threatened through a combination colonization, modernization, residential schools, and changes in child-rearing.[1,3,4] Existing interventions such as crisis lines are used to address immediate issues, but do not possess the answer as a long term solution.[4,6]

Figure 1. Canadian Inuit Regions[2]

Research Question What evidence exists to suggest an association between social capital and rates of suicide in Canadian Inuit Communities?

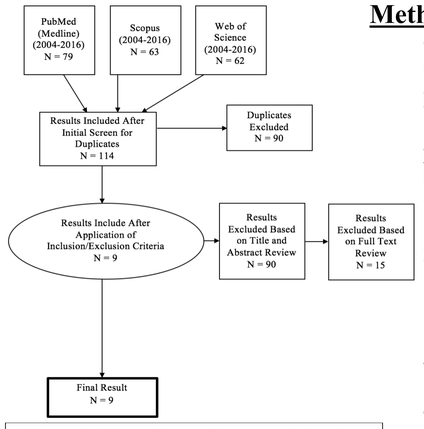

Figure 2. Flow Chart: Structured Review Process

Method

This structured review used the search terms "suicide" and "Inuit" in the databases, PubMed (Medline), Scopus, and Web of Science. Findings were narrowed to publication dates between 2004-2016. Other inclusion/exclusion criteria included:

1. **Language:** only results available in English were included.
2. **Population:** included studies based on Canadian Inuit, and excluded ones focused on general Aboriginal populations.
3. **Relevance to Topic-** included only results pertaining to suicide and/or social capital.
4. **Accessibility** – excluded abstracts and full texts not accessible through the University of Ottawa library databases.

Results

Author	Methodology	Sample	Results
Chacha-movich et al.[4]	Retrospective case control study	120 cases who died by suicide and 120 controls.	The mean age of suicide was 23.41 and 82.5% were male. Cases were more likely to be unemployed, single, have had legal problems, be a victim of childhood abuse, or have a personal/family history of psychopathology or suicide completion. An average of 1.61 previous suicide attempts per person were completed in the case group as compared to 0.30 in the control.
Fraser et al.[7]	Cross Sectional Study	305 Inuit between the ages of 15-24	More females reported psychological distress and physical/sexual abuse. Males reported participation in hunting, and females reported gathering. 45% had suicidal thought in their lifetime, 24% thought seriously about it in the past year, 31% attempted suicide at least once in their life, and 15% attempted within the past year. For males, psychological distress and violence during adulthood were associated with suicide attempts in the past year. For females, psychological distress, and physical/sexual abuse were associated with suicide in the past year. In both genders, participation in harvesting were protective.
Kral et al.[2]	Systematic Review	69 journal articles on Aboriginal autonomy, control and community action.	Canada is now entering a collaborative era with a priorities on Aboriginal empowerment and suicide prevention. Traditional 'good life' is being supported by family, with familiar land, food from hunting, and biannual migration. Colonialism was the most profound social change in Inuit history where marriage, gender roles and parent-child relationships were changed. Indigenous youth now manifest very high suicide rates. Reasons include youth feeling alone, romantic relationship problems, family problems, and anger. Now many Inuit-run programs address suicide prevention through youth identity, engagement, and community action.
Kral.[8]	Ethnographic study	50 Inuit Individuals in 2 communities.	Family, talking, and traditional culture are central to well-being. According to Inuit, romantic relationship and family problems are the trigger for most youth suicides (68%). Youths copy the suicide of their friends, creating a contagious effect. Because of the social changes created through colonialism, many youths now rely solely on peer support. Parents fear that with discipline, children will become suicidal. Inuit led changes such as local youth centers, group conversations, and the removal of closet rods, are a strong force in suicide prevention.
Morris & Crooks.[9]	Documentary analysis	17 source materials from 8 Inuit Organizations and governments	Literature agrees with ascribing the rise in Inuit suicide to colonialization and its continued effects. Developing a positive cultural identity is central to suicide prevention, as well as addressing the effects of colonialization, such as hopelessness, addictions and violence. There's a need for services specific to Inuit-needs. Evidence is accumulating to show that when Aboriginal communities design their own interventions based on traditional cultural values and practices, the efficacy of these interventions is high.
Oliver et al.[10]	A geographic Cross – Sectional Study	Outside Inuit Nunangat (n= 30071225) Inuit Nunangat (n = 48 015)	Between the years 2004 - 2008 the ASMR for ages 1-19 was 188/100 000 person years at risk in Inuit Nunangat compared to 35.4 for the rest of Canada. Suicides accounted for 40% of all deaths versus 8% in the rest of Canada. For girls suicide rates are ~40 deaths per 100,000 person-years at risk from 1994-2008, compared with around 2 in the rest of Canada. Among boys, the suicide rate was 77.2 deaths per 100,000 person-years at risk in 1994-1998 and 101.6 in 2004-2008. In contrast, suicide rates among boys in the rest of Canada fell from 6.1 to 4.2 deaths. As a result, the suicide rate ratio rose from 15 to 35.
Richmond.[3]	Cross Sectional Analysis	26 290 survey responses (n = 26 290) from 53 Inuit communities.	Women, married individuals, those who spoke/understood the native language, and those 45-54 were more likely to report high levels of all types of social support. Elderly individuals (55+) were the least likely to report high levels of social support. When Inuit participated in harvesting activities they were more likely to report higher levels of social support. This is especially significant in those who had trapped in the last year.
Tan et al.[6]	NKHL logs were studied by six independent raters.	3,974 calls received between 1991 and 2001	More calls were made by females (54.36%), and/or adults (81%). 72.1% of caller were single. Distress calls fell into several major categories (1) relationship concerns, (2) loneliness/boredom, (3) suicidal thoughts/intentions, (4) abuse, (5) physical and/or mental health, (6) substance abuse, (7) Stress, (8) legal problems, and (9) bereavement. Females were more likely to receive suggestions and be redirected to resources. Several callers noted the benefits of the crisis line, including a release of emotional tension within a confidential environment, gaining a clearer perspective, and arriving at potential solutions.
Tester & Mcnicoll.[1]	Systematic Review	46 articles on Inuit and Aboriginal suicide in North America	The most stressful structure is male/ female relationship. Risk factors include, being male, <30, single, impulsive, having parents with substance problems, having friends who attempted suicide, having a mental health problem, unemployment, being adopted, unstable upbringing, and experience of sexual abuse. Rapid social change is liable for a range of emotional states. Coping skills are a protective factor. The abuse of Inuit by the State have been a large source of mental health problems.

Discussion

Social capital has shown to be an important factor regarding the increased rates of suicide in Inuit populations. Specifically, changes in social capital related to familial relationships, cultural values, and male-female interactions has been associated with recent colonization and residential schools.[2,8] A general loss of the "good life" and positive cultural identity has resulted in an surge of mental illness and associated suicide within Inuit communities.[2,9] Suicide has become a vicious epidemic that is cyclically dependent on "copy cats" and an unchanged social structure.[8] The literature consistently described social risk factors such as unemployment, physical/sexual abuse, unstable family relationships, and being single as some of the most significant predictors for suicide: according to Chachamovich and his research team, these risk factors do not differ across the rest of Canada.[1,2,4,7,8] This likely demonstrates the primary issue of widespread social demise by which the issue of suicide manifests. While within designated Inuit communities females tend to experience more psychosocial stress than males, there are higher rates of suicide amongst Inuit young men.[4,6,7,10] The literature shows that Inuit females are more likely to be offered, and utilize social resources – a likely reason for the disproportionate number of male suicides.[10]

Limitations to this study included confinement to articles written in English, published in only the PubMed (Medline), Scopus, or Web of Science databases, and research specific to Canadian Inuit populations. An emphasis on suicide prevention within Inuit populations has just recently started to gain global attention. Therefore, without the benefit of longitudinal results, it is difficult to say with certainty what is an is not an effective means for prevention. Further, it is vital to note that these findings can only be used to benefit Canadian Inuit and cannot be generalized to other Aboriginal groups.

Future Research still needs to be done to fill in the gaps of this recently recognized study area. Future inquiries should focus on quantitative analyses regarding the neurodevelopment of these individuals, pathophysiology associated with risk factors, and the efficacy of preventative programs.

Conclusion

From this research, it is clear that deficits in social capital (specifically social support and participation in cultural activities) are related to lower self-rated scores of well-being and increased rates of suicide. For this reason, suicide prevention programs constructed by the Inuit themselves will have the best results. Supports that are specific to Inuit culture, based on traditional values, and foster community action will demonstrate the greatest efficacy. Forcing westernized programs onto a unique group of people will only further exacerbate the issues resulting from recent colonialism. Instead, a reparative approach concentrated on the healing of parental-child relationships, developing adequate coping skills, and facilitating cohesive community support is the key to an effective program.

References

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