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SOCIAL ANTHROPOLOGY | RESEARCH ARTICLE

“We don’t have the words in Inuktitut”: Pharmacy translations in Nunavut, Canada

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Abstract: In efforts to preserve and revitalize Aboriginal languages, recently introduced language legislation in Nunavut, Canada requires the availability of all essential services in Inuit languages. In Nunavut, the majority of inhabitants speak an Inuit language as their mother tongue but pharmaceutical health care is currently only available in English or French. Some challenges to legislative compliance include multiple dialects spoken across the Territory, the absence of any standardized Inuit terminology, and a complete absence of any pharmacists or pharmacy technicians who speak an Inuit language. Language concordant pharmacy health care is essential as it informs patient understanding of dosing instructions, side effects and treatment rationale which reduce adverse drug events, increase patient adherence and maximize the benefits of pharmacotherapy. The development of Inuit pharmaceutical terminology enhances the appreciation of Inuit language adaptability, while building cross-cultural understandings of biomedical and Inuit wellness ideologies and practices. The engagement of Nunavummiut will be essential to address challenges and to ensure that the full advantages of Inuit pharmacy health care can be realized however, the benefits of Inuit language pharmaceutical health care offer an important contribution to the health and well-being of Nunavummiut.

ABOUT THE AUTHOR

Dr Sandra J. Romain is a Medical Anthropologist with a PhD from the University of Toronto. Her work examines pharmacy health care among Inuit communities in Nunavut, Canada, and more specifically, how policy and practice are affected by the isolation and resource challenges in the Arctic and how Inuit culture intersects with the delivery of biomedicine. This work comprises part of her doctoral research in considering how Inuit language revitalization legislation in Nunavut addresses the challenges posed by complex pharmaceutical concepts and terminology.

PUBLIC INTEREST STATEMENT

It is essential that patients understand the purpose, proper usage and side effects of their medications to ensure that they can fully participate in their own health care, that their health issues improve, and that they are safe. However, ensuring full patient understanding of medications can be challenging due to the highly technical nature of medical jargon, accompanied by patients sometimes feeling too intimidated to speak freely to their health providers. This issue is of increasing importance due to the growing reliance on medications in treatments plans and increasing language differences between patients and providers due to global mobility.

This research explores these issues within the context of pharmacy health care in Nunavut, Canada, home to a predominantly Inuit population being served by non-Inuit health providers. Issues raised by this research include cultural understandings of medications, the translation of pharmacy terminology into Inuit languages and Indigenous language revitalization.

Subjects: Indigenous Peoples; Health & Medical Anthropology; Translation & Interpretation; Language & Communication; Health Communication; Pharmacy & Dispensing

Keywords: aboriginal/indigenous health; circumpolar; language; pharmacy health care; translations

when I went to school, we got strapped with a yardstick for speaking our own language. From that time on, I was so mad that I would never speak my language. I was told to speak English, so, therefore, I will speak English, but then they turn around and say ‘Oh now you have to learn and know Inuktitut’. Whatever. Anyways, that’s my issue, but I think we’re pretty lucky we still have our own language.~Inuit research participant (ID#26)

1. Introduction

Language is a tool that captures the essence of what it is to be human as it facilitates the crystallization and framing of human thought and enables our social construction of experiences through communication with others. Language can be used as a tool to represent belonging, both to build a sense of inclusion and membership within a community or to contribute to the exclusion or isolation of others through the construction and emphasis of difference. It is a repository of knowledge, and a testimony and archive of human culture, knowledge and understanding. Language is also living, evolving and reflecting the social, cultural and cognitive changes happening within communities every day (Crystal, 2000). The death of a language, therefore, is an irreplaceable loss of cultural identity (Grenoble & Whaley, 2006).

Language preservation and revitalization is an important global issue. It is estimated that one half of the world’s approximately 6,000 languages will be threatened or become extinct in this century (Crystal, 2000; Whaley, 2003). The factors that cause the death of a language are complex and affected by contextual issues such as the dominance and prestige of other competing language groups, as well as rates of attrition and revitalization efforts (Crystal, 2000; Grenoble & Whaley, 2006). All of these factors apply to Inuit languages in the Canadian territory of Nunavut and the Inuit people who live there. The lengthy colonial dominance of English and French languages in the Arctic escalated in the 1950s when children were sent to day or residential schools where Inuit languages were forbidden and Inuit children were taught that their mother tongue was primitive and dead (Legacy of Hope Foundation, 2010). Harsh punishments for speaking Inuit languages forced children to speak English or French and impacted their abilities to re-integrate into their communities upon return. The prohibition on Inuit languages in schools was part of an aggressive educational program intended to “remove and isolate children from the influence of their homes, families, traditions and culture, and to assimilate them into the dominant culture... Inuit [and other Indigenous] languages and cultural practices were prohibited in these schools” (Government of Canada, Indigenous & Northern Affairs, 2008). This history has had a lasting impact on the strength of Inuit language use in Nunavut. Canadian census data show that in Nunavut between 1996 and 2006, Inuit reporting Inuktitut as their mother tongue—referring to the first language used at home in childhood and still understood—declined 5% (from 88–83%), and Inuit reporting Inuktitut as the language used most frequently in the home, declined 12% (from 76–64%) (Statistics Canada, 2009). These trends have emphasized the need to preserve, strengthen and revitalize Inuit languages.

The Truth and Reconciliation Report was federally commissioned to acknowledge and address the many long term, negative impacts of the Residential School system in Canada. Findings in the report stated that “Aboriginal languages are a fundamental and valued element of Canadian culture and society, and there is an urgency to preserve them” (Truth & Reconciliation Commission of Canada, 2015). This federal acknowledgement and commitment provides support for the mandate of the Nunavut *Official Languages Act* (OLA) and the *Inuit Language Protection Act* (ILPA), which legislate language rights protection for four official languages in Nunavut: Inuktitut and Inuinnaqtun (combined, referred to as Inuktitut) as well as English and French (Government of Nunavut, Department of Justice, 2011, 2013). The OLA and ILPA require that all public signage, services and documentation be available in all four of the territory’s official languages, in particular for essential services such as

health care. Currently, the language of some social domains such as the Arctic environment, animal harvesting, and community relationships are dominated by Inuit languages. Other domains introduced with colonialism, such as formalized education, government services and biomedical health care, have traditionally been delivered in English or French. The goal of Inuit language legislation is to ensure that Inuit languages can continue to evolve and thrive in Nunavut.

As an essential service, health care is an important focus for multilingualism in Nunavut given that health care is predominantly delivered by English or French speaking personnel due to an underrepresentation of Inuit health care providers (in 2005, only 3% of practicing nurses were Inuit) (Nunavut Tunngavik Inc, 2009). Pharmaceutical health care is even further impacted by this language dominance in that no known Pharmacist or Pharmacy Technician in the territory is fluent in either of the two official Inuit languages and currently no uniform, standardized Inuktitut translations are available for use across the territory. Patient-provider language concordance aids patient understanding as to the purpose and dosing of their medications, which has been shown to increase adherence and success of therapeutic regimens (Ascertaining Barriers for Compliance, 2012; Westberg & Sorensen, 2005). Misunderstandings associated with language discordance, however, have been associated with adverse drug events including patient illness and death (Mitka, 2007; Sharif & Tse, 2010; Wilson, Hm Chen, Grumbach, Wang, & Fernandez, 2005). Given the importance of language concordance, ensuring availability of pharmaceutical health care in both Inuit languages in Nunavut is a priority.

Pharmacy software exists that makes patient instructions and prescription bottle labels available in many languages. But before any translation can happen, terminology, syntax and language structures have to be selected, validated and standardized to accurately reflect the meaning of the source language. This process of determining what constitutes an accurate translation is an active process involving cultural and linguistic negotiations to agree upon meanings and terminology. Translation is not merely the exchange of words for others found in a dictionary, but rather a dynamic cross-cultural event to negotiate meaning between culturally constructed concepts as envisioned by distinct individuals or ethnic groups. Translation requires the deconstruction and reconstruction of meanings across cultures to ensure accuracy of significance, rather than merely words (Vermeer, 2004). This process can become more complex when the original terms and concepts in the source language are foreign or disputed in meaning between cultures. Pharmaceutical health care in Nunavut was a colonial introduction; a biomedical domain previously unknown to Inuit and therefore rife with terminology, concepts and meaning that are lacking widely recognized Inuktitut translations. Finding and identifying accurate Inuktitut terminology for pharmaceutical communications is a daunting but crucial task that offers the potential to affect the quality of patient health care encounters and enhance patient understanding of how to take their medications properly, ultimately improving health outcomes in Nunavut.

1.2. The social landscape

Nunavut is a territory of 1.87 million square kilometers with a population of approximately 32,000 in 2011 (Statistics Canada, 2016). This low population density, combined with isolated communities and weather-related access issues are contributing factors towards disparate health indicators. Compared to the Canadian national average, Nunavut exhibits a substantially higher age-standardized mortality rate (4.9 vs. 9.7 per 1,000 in 2012, respectively) (Statistics Canada, 2015a) and higher rates of many infectious diseases such as tuberculosis (400 times higher than the Canadian incidence rate in 2012) (Public Health Agency of Canada, 2014). Nunavut high school graduation rates are less than one-half of the Canadian average (38.1 vs. 78.3% in 2009/10) (Statistics Canada, 2015b), an educational indicator of particular importance as literacy and more specifically health literacy, defined as “the ability to understand (e.g. read, write and speak) health-related information” (Tkacz, Metzger, & Pruchnicki, 2008, p. 974) are restricted by low educational levels. This educational profile is likely to interact with efforts to increase Inuit language use in many areas of health care including pharmacy services.

While there is ample literature to support that patients demonstrate a strong preference to receive their health care in their own language (Carrasquillo, Orav, Brennan, & Burstin, 1999;

Ngo-Metzger et al., 2007), there is little research considering patient preferences in such complex socio-linguistic landscapes as those that currently exist in Nunavut. Nunavummiut (those living in Nunavut) have always received their pharmacy health care in English and many are familiar with and effectively use pharmacy terminology in English. The predominantly English terms that they are familiar with (to varying degrees) will now officially have Inuktitut terms. Will they choose this option as is hoped for by those wishing to preserve and revitalize the languages? Or will they continue to use the more familiar English terminology?

In light of this significant transitional event in Nunavut's language journey, the purpose of this research is to examine the perceptions, beliefs and concerns of those in Nunavut regarding the forthcoming translation of pharmaceutical terminology into Inuit languages. Through the examination of these issues, a deeper understanding of the associated tensions and concerns may offer guidance towards supporting this language transition and encouraging acceptance of pharmacy services delivered in Inuit languages to serve the goals of language legislation in strengthening and revitalizing Inuit languages in Nunavut.

2. Methods

A postcolonial theoretical framework provides direction for the examination of language and culture, and how patterns of inclusion and exclusion continue to influence the use of language in health care settings long after the creation of Nunavut as a separate geo-political entity looking to move beyond its colonial past with Canada. Postcolonial theories consider issues of how the history and legacy of colonialism continue to shape the social landscape of people's lives (Young, 2001). A postcolonial framework is particularly useful for considering Indigenous issues as it provides an analytical lens to examine the embodied attitudes and power relations shaped by history, and that are shaping the context of current health care delivery (Browne, Smye, & Varcoe, 2005). In this research, a postcolonial perspective is used to examine how centuries of colonial practices in Nunavut affect efforts to preserve Inuit languages which have been historically suppressed by colonial powers. While a postcolonial framework focuses on the present-day tensions that have been shaped by history and emphasizes the incompatibility between knowledges, the spaces that exist between knowledges may benefit from further dialogue to explore and build on existing commonalities and compatibility.

Research methods included participant-observation, visual data analysis of photographs and in-depth semi-structured interviews with 35 participants in three Nunavut communities, and in the Canadian capital city of Ottawa between November 2012 and May 2014. Interview participants consisted of residents, health care providers, administrators, and key policy stakeholders. Some participants provided interview responses based on multiple roles (e.g. as both health care providers and community residents). Participants were recruited through signs posted in several public locations, local radio promotion, modified snowball sampling and targeted purposive sampling of key informants. This research project was community-driven, with the interview topics and questions originating from within the community through initial consultations, and with approval by the community prior to territorial Research License approval. Research protocols received institutional approval through the University of Toronto's Office of Research Ethics (Protocol #28248) and were licensed through the Nunavut Research Institute (License #01 033 13 N-M).

Informed consent documentation and interview guides were developed with community, territorial and institutional assistance to ensure they reflected common language terms for varying levels of language concordance. Participants were offered either English or Inuktitut informed consent documentation that had been translated into the local community dialect of Inuktitut; all but one participant elected to use the English document. Private interviews were held in one of several participant-selected locations with translators available upon request, although no interview participants requested their interviews be conducted in Inuktitut.

The goal of this research was to gain a more complete understanding of the attitudes, beliefs and perceptions of individuals regarding pharmaceutical health care in Nunavut, specifically in relation

to the forthcoming availability of pharmacy health services in Inuit languages. To support these goals, open-ended questions were used to elicit personal and professional (if applicable) information about pharmaceutical health care. Throughout the interview process, iterative questioning and member checks were used for verification and clarification until internally consistent understandings were observed. Data triangulation was achieved through interviews with individuals on opposing sides of transactions (e.g. administrators and patients) while methodological triangulation was achieved through interviews, observation and photographs taken of blank stock translated pharmacy identification labels.

Each interview was audio recorded digitally and transcribed verbatim for analysis. Protocols to ensure transcription quality were informed by Poland (1995). The QSR-NVIVO v10.2 (QSR International Pty Ltd, 2014) software was used to code and analyze transcript data. The coding strategy developed for data analysis included using nodes to identify themes within the data and attributes to identify demographic information (i.e. gender, ethnicity, role and community affiliation) from participants. The conceptual framework for data analysis was informed by open coding, with emergent tree nodes outlining broad themes and child nodes allowing for more in-depth interrogation of the data. Queries on key words and themes were used to analyze the data and saturation was established when supporting evidence for findings was collected from all participants within similar roles or with similar attributes.

3. Results and discussion

3.1. Postcolonial language preferences and issues

The transition in Nunavut to self-governance through the creation of one of Canada's territories in 1999 marked its shift into a postcolonial phase. While postcolonial transitions are often marked by a status change to sovereignty, in Nunavut, postcolonialism is more accurately defined by a continued geo-political inclusion within Canada, with a return to greater Indigenous autonomy in many social, political and cultural domains. While this era marks a new and perhaps unpredictable time for Nunavut, we can look to other jurisdictions for insight into how societies work through such postcolonial transitions, and in particular to how language transitions are impacted by postcolonial changes. Some postcolonial states use language as a way to assert identities through the active promotion of local languages over colonial ones. For example, Tanzania replaced English with Swahili, Pakistan deemphasized English over Urdu, the Republic of Korea replaced Japanese with Korean, and the Malaysian government emphasized Malay over English (Bray & Koo, 2004). Postcolonial transitions however, exist within a larger global arena where English-dominated opportunities can influence the prestige and cultural capital associated with English-language use, which can serve to create competition for the promotion of local languages.

In 1997, Hong Kong reverted back to Chinese sovereignty after 155 years as a British territory (Bray & Koo, 2004). Both before and after 1997, governmental attempts were made to increase the level of Cantonese in education, but these attempts were met with sustained resistance. Due to beliefs about the status of English as an international language, many parents demanded access to English education, in particular at higher levels of education as "essential domains of scientific and technical knowledge could not all be translated into national languages" (Bray & Koo, 2004, p. 219). Access to domains that are English-dominated, such as scientific and technical knowledge or broader domains that are predominantly delivered in English, such as the Internet, provide those that are English proficient with an enhanced level of cultural capital and prestige (Pasch, 2008). In Nunavut, this cultural capital is demonstrated in greater success in higher levels of education that are delivered in English, expanded employment opportunities where bilingualism is required, and through these combined privileges, the ability to hold positions of greater status and authority due to a shortage of qualified Inuit in the territory. The prestige and pride associated with English proficiency was offered by both Inuit and *Qallunaat* research participants as a possible explanation for the low number of requests for the use of a translator in medical encounters. Several research informants suggested that this may also be the reason behind the lack of requests for the use of an Inuktitut

translator during interviews and few requests for translated study documentation (i.e. Informed Consent document). Within this context, proficiency in English may be considered a symbol of status and prestige which may influence the future uptake of Inuit language pharmacy health care among the Inuit.

Some social domains, such as medical sciences (and by extension, pharmaceutical sciences), are internationally recognized as English domains. English has increasingly become the dominant language in medicine to facilitate the common understanding of international medical science research (Huttner-Koros, 2015). The *lingua franca* of Medicine is referred to as Medical English, acknowledging this English subcategory of discipline-specific, anglicized terminology derived from Latin and Greek origins (Wulff, 2004). English is the most common language of instruction in medical schools globally; in international medical schools outside of the US and Canada, 37.5% of instruction is delivered in English, even though only 22% of the countries where these schools are located recognize English as an official language (Boulet, Bede, Mckinley, & Norcini, 2007). English is the language of choice for most medical conferences, and all of the leading medical journals are published in English, with the ratio of published English-language articles increasing annually (Huttner-Koros, 2015; van Weijen, 2012). These global trends towards the use of English as a common language for medical sciences provide a sharp contrast with Nunavut's efforts to translate the domain of medicine, and by extension pharmacy services, from English into Inuit languages. During interviews, participants frequently and openly questioned the rationale for translating pharmaceutical terminology into Inuit languages. When the goals of the OLA and ILPA were explained (because participants were widely unaware of the existence or implications of this legislation), reactions ranged from indifference to strong opinions that these language translations were unnecessary due to predicted lack of uptake. These reactions highlight the tensions that exist in the attitudes and beliefs of Nunavummiut regarding language preservation contrasting with a social domain currently recognized and accepted as being English. Is there usefulness in subjecting a social domain that continues to be increasingly English-dominated on an international scale to the processes of language translation and integration on a local scale? Is Indigenous language preservation threatened by the homogenizing use of English as a standard in the pharmaceutical domain? While these questions reveal broader political, social, and cultural complexities, given that these language transitions are already in motion and soon to be implemented, questioning the pros and cons of such transitions are only useful insofar as to increase understanding of the social landscape that newly developed Inuit language pharmacy terminology will exist in. These attitudes and beliefs of Nunavummiut could be expected to provide resistance to the uptake of Inuit language pharmacy services in Nunavut and will need addressing if the language preservation and revitalization goals of the legislation are to be realized.

3.2. Profile of Nunavut pharmacy health services

In Nunavut, health care is delivered in Community Health Centres (CHCs) predominantly by Community Health Nurses (CHNs). Administratively, the Territory is divided into three regions: the Kivalliq in the southwest, the Kitikmeot in the northwest and the Qikiqtaaluk in the east. The two western regions are each served by a Regional Health Centre with some limited in-patient capacity and expanded diagnostic services, while the east is also served by Qikiqtani General Hospital in the capital city of Iqaluit. In the remaining 22 communities in the territory, health care is delivered in CHCs.

Access to quality pharmaceutical health care has significant effects on health care outcomes (Mojtabai & Olsson, 2003; Piette, Wagner, Potter, & Schillinger, 2004). While in many jurisdictions access to medications is affected by financial considerations and it is estimated that one-third of individuals in the developing world do not have access to essential medicines (World Health Organization, 2016), Inuit in Canada are provided with no-cost pharmaceuticals through the federally funded Non-Insured Health Benefits (NIHB) Program. Most medications, including over-the-counter (OTC) drugs such as antihistamines and pain/fever reducers are included in this program, thereby reducing financial barriers to access.

The Qikiqtani General Hospital and Regional Health Centres act as ordering and distribution hubs for pharmaceuticals that are dispensed in the CHCs. Bulk containers of pharmaceuticals are shipped to the CHCs for local dispensing to patients by health care providers. For medications that are not dispensed within the CHCs, prescriptions are filled at one of the five retail pharmacies in the territory; two in Iqaluit, two in Rankin Inlet and one in Cambridge Bay. In communities without a retail pharmacy, prescriptions are faxed to retail pharmacies, dispensed and then flown into the remote communities and distributed through the CHCs. Previous research (Romain, Kohler, & Young, 2015) has highlighted these procedures as impediments to patient access to Pharmacists and pharmaceutical counseling, both of which can affect patient understanding of the dosing, purpose and side effects of their medications. These impediments may be exacerbated by cultural and linguistic discordance between Inuit languages and culture and the biomedical practices of pharmacy health care. This resulting diminished understanding can influence patient adherence to pharmacotherapy and increase risk for adverse drug events (Romain, 2013). Working to reduce these barriers to access and service discordance in Nunavut may serve to improve pharmacy health care and patient health outcomes.

3.3. Current pharmacy language in Nunavut

All of the Inuit participants in this study expressed their current familiarity with, and preference to receive their pharmacy services either entirely or predominantly in English. A middle-aged Inuit participant (ID#19) explained this preference as follows:

Because there, I can understand it more than Inuktitut. I can understand Inuktitut, I'm a full-time Inuktitut speaker, but ah like medications, everything, ingredients... It's really hard to translate.

The often highly scientific terminology used in pharmacy health care does not currently have recognized Inuktitut translations and therefore English terms are generally used. These English words include generic or brand names of medicines (e.g. ibuprofen or Advil®) as well as classes of medication, such as antibiotics or antacids.

In CHCs and retail pharmacies, Inuktitut translated labels are currently available to varying degrees when dispensing medications to Inuit patients. Interviews with retail pharmacy and administrative participants indicate that the original Inuktitut translations were made by local community members and then either: (a) printed onto pre-fabricated labels, (b) photocopied onto blank paper for affixing as a label or inserting into clear bottles for commonly dispensed medications or dosages (Figures 1–3), or (c) handwritten onto labels by translators employed in the retail pharmacies and CHCs. Retail pharmacists have expressed concern over this practice as they lack the ability to validate the accuracy of the translations and recognize liability issues that may result if inaccurate translations were to result in adverse drug events and/or patient harm (Romain, 2013). However, they have implemented this practice in the absence of any superior alternative and no publicized issues have arisen to date.

Figure 1. Generic blank label used for translation of dosing instructions into Inuktitut for medications dispensed in Community Health Centres.

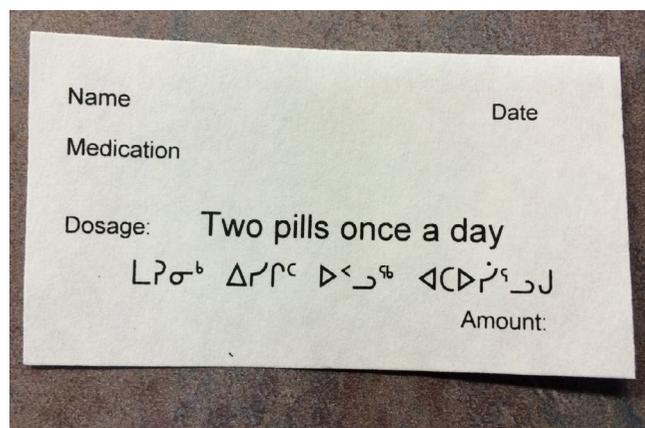


Figure 2. Generic blank label used for translation of dosing instructions into Inuktitut for medications dispensed in Community Health Centres.

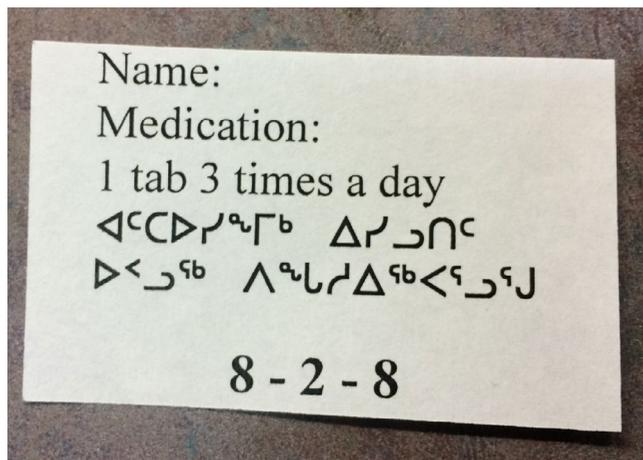
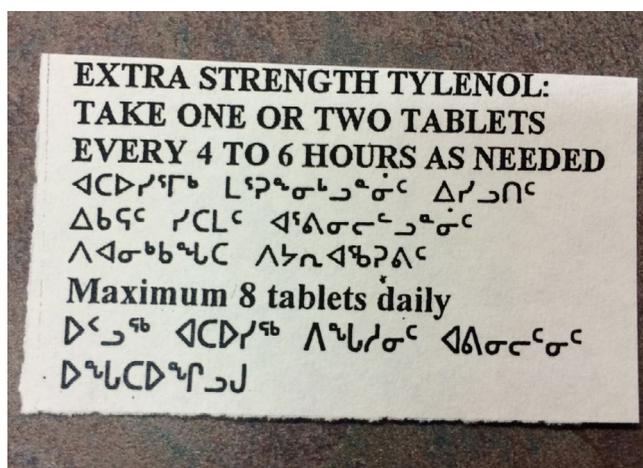


Figure 3. Label used for translation of identification and dosing instructions into Inuktitut for Acetaminophen dispensed in Community Health Centres.



While challenges in translating technical terminology are somewhat understandable and expected, the translation of dosing information, such as that on the label of a medication bottle (e.g. take one pill two times per day) might be expected to be more straightforward. However, research provides anecdotal evidence in other jurisdictions of inaccurately translated prescription labels resulting in patient illness and death (Mitka, 2007; Sharif & Tse, 2010). Multiple studies (Bekinrane et al., 2009; Kopp, Erstad, Allen, Theodorou, & Priestley, 2006) have shown that improper dosing causes approximately 20–25% of all preventable adverse drug events. Several bilingual participants recounted experiences with, and shared concern regarding translations that they did not feel accurately reflected the transfer of instructions from one language to another. As explained by a senior-aged Inuit participant (ID#11),

Some of the words are not translated right. So we have to be careful... if you have to take the pills once a day or take one pill a day twice a week, in Inuktitut it would switch to take two pills a day for one day... So they have to be very careful cause some people just give instead of reading, like give you a pill [and say] “You should take these”... And they think that we already know but sometimes we don’t ask.

The accurate dosing of medications is essential for patient safety. Although some participants lacked confidence in the accuracy of translations, in the review of several translated pharmacy labels (Figures 1–3) by an Inuit nurse with extensive experience working in many Nunavut communities, the clarity and accuracy of these particular labels were verified, although these are but a tiny

sample of the medication labels provided in Nunavut. Therefore, it is unclear what factors are influencing some patients to mistrust the translations on their medications or the extent of the problem. Further investigation into these issues is warranted as even a single experience with an incorrectly translated label could be both directly detrimental to patient health through an adverse drug event, or indirectly detrimental through the erosion of trust in the health care system.

The multiple dialects of Inuktitut across the territory make the translation of pharmacy labels a significant challenge. When Inuit research participants were asked about these dialect differences, all acknowledged that there were challenges with different words, pronunciations and understandings between communities. One Inuit community member from the Kivalliq stated that they had significant difficulty even understanding conversations in the capital city of Iqaluit. Among the 60,000 Inuit living across northern Canada, including Nunavut, no less than 9 different writing forms, and at least that many dialects are spoken (Weber, 2016). National meetings are underway to seek an agreement on a standardized language, but it is not expected that a consensus will be easy to obtain. As discussed previously, language can be used to signify inclusion and identity, and interviews with Nunavummiut confirmed that distinctive dialects are often used to symbolize community membership. For example, educational materials (i.e. textbooks) that are written in a dialect common in the Qikiqtaaluk (Baffin) region, where most materials are translated, are not universally accepted across the territory. As explained by one interview participant (ID#8) involved in education,

the people here won't read them in the Baffin dialect to their kids because they don't make sense to them, they're not the right dialects, they're not their language so they just put them aside. Even in the classrooms here, even Inuktitut teachers here. They come in boxes, big boxes of them all very well meaning, it's not their language.

The practices of using dialects to signal community affiliation are likely to interfere with the ability to reach a consensus on a common Inuit language and will delay any agreement upon a territorial standardized pharmaceutical terminology. These dialect differences currently have the potential to make a serious impact on translations done in local CHCs and retail pharmacies, with translations reflecting the dialect of the translator and not necessarily that of the community or the patient.

Recognizing the challenges in translating English pharmaceutical terminology into Inuktitut languages and dialects, Inuit translators resort to providing translated instructions conceptually as opposed to verbatim. This practice serves to reach a deeper understanding with the patient that may be more reflective of culture and/or individualized patient-specific levels of education or familiarity with medicines. An Inuit health provider (ID#23) explained how they translated medication instructions for patients,

I don't have a lot of troubles with that [medications] because I deal with the patients directly and I give them the directions in Inuktitut so... I explain not by naming them, but the process they work. So it's sorta the same generalized instruction.

Culture is an important consideration when translating pharmaceutical information as cultural discordance can have a significant effect on the quality of health care encounters (Browne, 2007; Kagawa-Singer & Kassim-Lakha, 2003) and patient understandings of the purpose of, and adherence to pharmacotherapy (World Health Organization, 2003). Previous research (Romain, 2016) has highlighted the discordance between Inuit wellness and biomedical health models, specifically between traditional medicine and pharmaceuticals. These differences make translations from English to Inuit languages more than merely word exchanges but also include issues of conceptual switching between biomedical and Inuit wellness health models. Given that Inuit have been exposed to and/or have been recipients of biomedicine for many generations, Nunavummiut are quite adept practitioners of medical pluralism. Evidence of routine acceptance of elements from both biomedicine (e.g. taking pain relievers or antibiotics) and Inuit wellness models (e.g. community feasts and time on the land) are commonplace. Inuit interview participants explain that pharmaceuticals are

understood to be *Qallunaat* (European/outsider) medicine and distinctive from treatment with Inuit traditional medicine. This may be attributable to the fact that pharmacy health care has been an overwhelmingly English domain in Nunavut. Translating pharmaceutical language from the biomedical health model to Inuit languages will not necessarily be easily represented by Inuit conceptualization of health and illness and may cause disruption to the current negotiation of pluralistic health care by Nunavummiut. It would be beneficial to take these complex issues into consideration when working to establish standardized translations for pharmaceutical terminology as they may impact the conceptualization of meaning behind the Inuktitut terms selected and influence the uptake of Inuktitut terminology once it becomes a widely available choice in pharmacy health care.

3.4. Future pharmacy language in Nunavut

Given the recent and extensive changes required by the new legislative policies, and the absence of a territorial Pharmacy Association, compliance with multilingual language requirements within the pharmacy sector has encountered several challenges. These challenges include: the development, negotiation and acceptance of standardized terminology, a commonly agreed upon dialect, and then the dissemination of materials to best ensure their successful uptake in health and pharmacy sectors.

Given the fact that much of pharmaceutical terminology is grounded in English-dominated scientific and medical knowledge, in many situations Inuktitut linguistic terms need to be found and/or created to translate terms and concepts that have been historically only spoken in English or French. This situation was recognized by an Inuit participant (ID#4) as a reason for her current preference of English-delivered pharmacy health care,

I prefer it [pharmacy health care] in English cause of the terminology. Cause the terminology if it was translated it's very new and I didn't learn about it so I would have trouble understanding what they're meaning... faster for me to read it in English.

The Inuktitut terminology eventually selected to be the standardized pharmaceutical terms can have a significant impact on patient care. For example, the historical Inuktitut term for cancer (*annia aaqijjuajunnangituaq*) means “incurable ailment”, which might have been more accurate decades ago when cancer treatment was limited, but now has been found to interfere with patient adherence to current treatment plans given the fatalistic Inuktitut diagnostic term. New Inuktitut terminology was sought to mediate this conceptual discordance and more accurately reflect the current realities of cancer treatment. The newly accepted Inuktitut term *kagguti* means “knocked out of natural order”, and is hoped to positively impact patient understandings of cancer and current treatments (Pauktuutit: Inuit Women of Canada, 2013; Rogers, 2014). It is essential that the new standardized pharmacy terminology is reviewed thoroughly by multiple sources to ensure that both the linguistic and conceptual meanings of the selected terms best support positive understandings of pharmacotherapy.

The incorporation of English-dominated pharmaceutical terminology into Inuit languages may go against the current global trends in medical language homogenization however, there are several important advantages that can be gained through this transition. Previous research (Romain, 2016) has highlighted several issues in pharmacy health care in Nunavut resulting from a discordance between biomedical and Inuit health models that may benefit from standardized translations in Inuit languages. First, given the current limited availability of Inuktitut terminology for pharmacy, challenges have arisen in providing clear differentiation between the classes and purposes of medications. Inuktitut words exist for “pill” (*ijagaq*), and Tylenol® (*tailinaa*), as published in a glossary for health providers in Iqaluit (south Baffin/Qikiqtaaluk dialect) (Department of Health & Social Services, 2011), but other Inuktitut terms for different medications are not commonly known. This limits patient-provider conversations and understandings when many medications are lumped together into undifferentiated categories. Examples of how this issue manifests are when a previously experienced side effect from one class of medication prevents a patient from adherence to a completely

different medication due to unrecognized differences between the medications. With the development of standardized pharmaceutical terms that differentiate classes of medications, it is hoped that health providers and Inuit patients can have more constructive and informed conversations to address patient concerns about their treatments. Second, Inuit lifestyle factors specific to medication instructions were discussed as an impediment to pharmacotherapy adherence. For example, Inuit dining patterns do not always include three meals per day as indicated by dosing instructions, and wake/sleep patterns can be affected by the long days of sunlight or darkness in the Arctic. This cultural discordance can create confusion if meals are missed, or there are misunderstandings regarding the necessity to take some medications with food to increase absorption or minimize unpleasant side effects. The recognition of this discordance by health providers and pharmacists may serve to inform a closer alignment of pharmaceutical regimens with Inuit cultural practices. It is hoped that culturally concordant medication dosing instructions will more accurately reflect patient-related practices and act to support adherence to pharmacotherapy. Third, characteristics of biomedical and Inuit wellness models, and treatments in particular, significantly differ in ways which would benefit from greater mutual understandings. While Inuit often consider “time on the land” spent in camps with family and friends engaging in traditional activities, and traditional foods such as marine mammals and caribou, to be restorative for many health issues, biomedicine focuses on pharmacotherapy. These differences may impact the quality of patient-provider relationships and patient adherence to medication regimens if patients believe that healing is best obtained through alternative methods. Through the informed discussions required to accurately translate pharmaceutical terminology, it is important that a heightened appreciation for both systems of treatment can be achieved and misunderstandings can be clarified to positively affect therapeutic relationships and support patient adherence.

The development of Inuktitut pharmaceutical terminology is both one of the most challenging and the most exciting tasks prescribed by the OLA and the ILPA. The development of Inuktitut terminology for words and concepts that have until now, predominantly been spoken in English, is a demonstration that Inuktitut is a living language that is dynamic and vibrant and offers much hope for its continued vitality. Importantly, the active involvement of the wider Inuit community to develop Inuktitut terminology also provides opportunities for empowerment through negotiation of meaning and enhanced cultural appreciation. This process could involve the examination of historical sources for Inuktitut terminology. Inuit research participants (ID#s 15 and 16) involved in Inuit language promotion and preservation discussed this process in relation to the newly accepted Inuktitut term for cancer (Pauktuutit: Inuit Women of Canada, 2013),

- I1 [the new term] might not be in everyday language, but once you put the word out there that you’re looking for certain terminology [a new term in Inuktitut to translate an English term], then it’s probably out there
- I2 And language is such a living thing, like it’s not a matter of just sitting down and saying let’s come up with these words... sometimes you have to go back and talk to people and say “Hey this is what we’re thinking” and someone might say “Oh well this makes real sense, we should use this word”.
- I1 they went through a process of discussing with elders and it [the new term for cancer] was a term an elder in Northern Quebec had recommended.

These negotiations and conversations serve to strengthen links within Inuit communities and demonstrate the ability to bridge historically embedded traditional knowledge with modern scientific and medical concepts. Inuktitut words are not “created” to translate terminology, but rather are “found”, building a cultural appreciation for the versatility and relevance of Inuit languages. This language and cultural appreciation will be instrumental in the continued preservation and revitalization of Inuit languages in Nunavut.

The practice of direct involvement in developing translations can also be mutually beneficial in that these activities offer insight for English or French speakers to understand the conceptual exchanges that occur in the translation of terminology from one cultural set of meanings to another. Through the practice of negotiating terminology, it is possible for biomedical practitioners to gain greater insight into Inuit health models. Enhanced cultural understandings can serve to inform and improve culturally concordant practices which positively affect the quality of patient-provider relationships (Browne, 2007; Kagawa-Singer, & Kassim-Lakha, 2003; Romain, 2016).

Long standing familiarity and preferences for pharmacy services in English will need to be unseated by targeted interventions that are best informed by broad consultations within communities in all sectors to discuss the many ways that the new Inuktitut pharmacy terminology will affect Nunavummiut. In addition to health and pharmacy representatives, these consultations should also include input from representatives from law enforcement, justice, education and social service sectors.

The goals of Inuit language legislation, the preservation and revitalization of Inuit languages, are well served by conversations surrounding the application of the legislation. As stated by a research informant (ID#15) involved in language protection:

it's created an expectation and also dialogue on what we should expect as a society in order to protect our language and to have our language be present in our lives.

These growing conversations regarding the value of more immersive use of Inuit languages in Nunavut are connecting Inuit with their cultural and linguistic heritage and demonstrating the depth and breadth of Inuit languages as living entities. The capacity of Inuit languages to adapt to contemporary Inuit life serve to build cultural pride which contributes to social cohesion and a renewed appreciation for Inuit languages that was threatened by the colonial education systems of the last century. As discussed by an Inuit research participant (ID#15),

[One] aspect with creating terminology is often the words that we have that describe outsiders have been very, without us realizing, have been very oppressive in a way because they're authority figures... like I mean we've grown up in a society where if you are a non-Inuk, you have a good job, if you are non-Inuk, you're in a position of power, what you say is the way things happen right? I mean I think we're, we've come to a situation in our society where we recognize that's not reality, but our words still describe it in that way. For instance, the [term for the] Auditor, Office of the Auditor General, [means] 'they're looking for mistakes'. So every time you say that... every time you hear that in Inuktitut you think oh we're making mistakes, were probably making mistakes, they must be looking for our mistakes, you know. So even though we're not talking to each other in a panicked way about it, just the words that we're using and the way we're describing it already has that oppressive feeling to it right? Without us realizing it... So I think it's very important... to develop words that also at the same time affirm and strengthen us as a people.

Full realization of the OLA and the ILPA will result in a complete multilingual society that embraces Inuit languages in all social domains in Nunavut.

5. Conclusions

Limitations of this research include the ethnic, gender and social differences between the researcher and many of the participants in this study. As a *Qallunaat* woman conducting academic research in an initially unfamiliar place among unfamiliar people, creating the familiarity essential for mutual understanding was challenging. Many visits to the community to build relationships and trust as well as community and individual introductions (e.g. snowball sampling) helped to cultivate mutual familiarity. Extensive reflection of personal and professional ethnocentrism considered how assumptions might influence the research design, practice and interpretations. This reflection included an enhanced awareness of exploitive research histories in Indigenous communities, as well as

discussions within the community of how the personal attributes of the interviewer might affect participant comfort and candor. In recognition of these factors, a deliberate decision was made to ensure that participant voices were most prominently and clearly featured with minimal interpretation.

The current focus in Nunavut towards the widespread availability of standardized pharmacy service and terminology in Inuit languages provides a unique opportunity to address existing issues of linguistic discordance which have been shown to impact patient care.

This standardization faces many challenges, including the determination of a common Inuit language and orthography. The multi-stage processes of finding, developing and negotiating Inuktitut terminology requires the full participation of both *Qallunaat* and Inuit in these translation processes. Translation as a cross-cultural event promotes understanding for both biomedical and Inuit wellness practices. These translations serve to strengthen Inuit languages and build cultural pride while these new understandings can inform cultural competencies in health services and improve the quality of patient-provider relationships.

Once the terminology has been developed, the input and cooperation from multiple sectors will be required to ensure widespread application and uptake. With two distinct categories of pharmaceutical providers in Nunavut—corporate pharmacies and territorial health centres—the potential for inconsistent availability and application of translations is substantial. Collaboration across all providers will be essential to ensure that translations are consistently applied regardless of distribution source. All health centres across the territory will require adequate resources to assist prescribers in dispensing medications with standardized translations. Possible transaction supports could include computer software to provide pre-programmed labels or pre-printed labels for commonly dispensed medications.

Ultimately, although there are many challenges to address in this transition, the resulting availability of Inuit pharmacy services offers many advantages for the health and well-being of Nunavummiut and is an important contribution to the continued health of Inuit languages in Nunavut.

Update: In June of 2016, the Languages Commissioner position in Nunavut was vacated and although posting for a replacement began immediately, as of May 2017, this position had not been filled. The Languages Commissioner's mandate includes monitoring, advocating and advising for language rights' protection. As such, this role includes ensuring that Inuit language pharmacy health care becomes a reality in Nunavut. The absence of leadership in this role has likely affected the progress of pharmacy translation.

In November of 2016, a committee was formed by the Minister of Health and *Inuit Uqausinginnik Taiguusiliuqtiit* (IUT) to address pharmacy translations in the territory. Committee members include representatives from IUT, the Department of Health, the Department of Culture and Heritage, corporate pharmacies, and Inuktitut linguists. The committee will be conducting reviews of Inuit language terminology from other Inuit jurisdictions such as Nunavik (northern Quebec) and Greenland to inform translations. Identified priorities include the establishment of Inuktitut terminology for drug administration instructions and Inuktitut names for the most highly used medications. Following the establishment of standardized pharmaceutical terminology, it will be necessary to develop plans to ensure widespread dissemination across both retail pharmacies and territorial health facilities.

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