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Telemental Health with Remote and Rural First Nations: Advantages, Disadvantages, and Ways Forward

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Abstract

Remote and rural First Nation communities have limited mental health services compared to urban communities yet their needs are similar and sometimes greater. Community members living in remote, isolated communities requiring mental health services are usually faced with two choices: having no service or leaving their community to access services in larger centres. Certain First Nation communities offer a third choice: using telemental health delivered via videoconferencing to provide clinical mental health services for community members. Like all technology uses, telemental health services have advantages and disadvantages, both for the individual and the community.

Understanding mental health workers' experiences of telemental health and its benefits and drawbacks for remote and rural First Nations people was the focus of our study. Qualitative data were collected through interviews with mental health professionals (clinicians and non-clinicians) working with First Nations communities. Quantitative and qualitative data were collected from a national online survey of mental health workers working with clients in rural and remote First Nations. This paper presents a thematic analysis of the data collected. Advantages include allowing community members to remain within their community for treatment and connecting First Nations trauma survivors to each other; disadvantages include increased difficulty building and maintaining clinical relationships via videoconference and ethical concerns of using the technology. These and other pros and cons of using telemental health are discussed. Certain ways forward that seem promising are proposed, including incorporating traditional practices and the seven teachings into telemental health initiatives. Finally, policy recommendations are offered.

1. Introduction

Telemental health service delivery to remote and rural First Nations communities is growing in adoption across Canada. It plays a key role in helping remote and rural First Nation communities access needed mental health services. However, aside from program evaluations, little research exists on telemental health for First Nations within the Canadian context.

According to the 2004 *Telemental Health in Canada Status Report*, telemental health activities usually involve videoconferencing (Polycom or Tandberg systems, connecting two or more sites in real-time audio and video) and encompass the following activities: consultation between health professionals, managing care of clients between professionals, and service and care provision to clients. In addition, educational activities related to mental health often take place via videoconferencing. These activities span home, community, and institutional settings (Health Canada, 2004).

Despite the lack of published research, significant benefits (including increased access to services and user satisfaction) and challenges (such as lack of funding and infrastructure) to using telemental health for First Nation communities have been identified (KO 2002; KO 2006; Shore et al. 2008). It would seem obvious that the use of telemental health for remote and rural First Nations will also depend on the attitudes of the users – in this case the service providers and the clients. However there has been very little research on this topic internationally and none in Canada.

Our study is exploring the perspectives of mental health professionals – both clinicians and non-clinicians. This paper, an initial report from a larger study, explores some patterns of telemental health for First Nation communities as well as some advantages, disadvantages and challenges, and ways forward. Based on the findings, policy recommendations are proposed.

The current study – and this paper - focuses on the attitudes of mental health workers. We are planning more community-level research to gain an understanding of how communities and potential clients perceive these technologies for mental health. We believe research on this topic has exciting potential: increasing knowledge of the current use and benefits of this technology and how to address its challenges can stimulate the use of telemental health to provide increased services that could increase community wellness.

2. Literature Review and Research Questions

Telemental health, originally known as closed-circuit two-way television, has been existence for close to five decades (Wittson & Benschoter, 1972). However, in Canada its use only began to grow in the mid-1990s (Health Canada, 2004). Since then, all the provinces and territories have used telemental health to some degree (Health Canada, 2004). Telemental health provides an opportunity to reach rural and remote populations who may have difficulty accessing services. Remote communities are usually only accessible by plane, and so are particularly isolated and in need of services. A 2002 report by the Keewaytinook Okimakanak Tribal Council noted that certain Northern Ontario First Nation communities only had access to

approximately 57 days of direct psychiatric care a year (KO, 2002). The cost of in-person visits to the community for psychological and psychiatric care can be very costly, and so telemental health represents a potentially cost-effective alternative (Brasfield & Clement, 2007; KO, 2002). First Nation communities that have been able to access telemental health services have experienced many benefits (KO, 2002; KO, 2006).

One of the conclusions reached by Health Canada's telemental health status report was that the key informants viewed telehealth as a "strategic tool, capable of improving the access to and quality of mental health services at the local or community level. They foresee a great potential for rural and remote communities in particular, where serious shortages of health professionals are felt. Almost all forecast an expansion of telemental health services in the near future" (p. iii, Health Canada, 2004).

The report outlined a number of key challenges to reaching this potential. These include: a lack of service providers, under developed information and communication technology (ICT) infrastructures, insufficient funding, a lack of capacity to implement projects, and "cultural issues." In addition, like within the general telehealth climate – difficulties also exist related to reimbursing service providers and licensing; some mental health associations have developed guidelines for telemental health use by practitioners, and others have yet to do so.

Furthermore, mental health care policies were designed for face to face interactions (Health Canada, 2004). Finally, clinicians attitudes toward using the technology can be a challenge in the use – if clinicians do not perceive there to be benefits, perceive it to be a useful service, and perceive that they are able to use the technology, it is unlikely that they will be engaging with the ICT. We know from several landmark studies over the last two decades as well as our own recent work that there is great importance in perceived usefulness and perceived ease of use of the technology in terms of prediction of actual use of the ICT and satisfaction with using it (Davis, 1989; Gibson & O'Donnell, 2009; Townsend, Demarie, & Hendrickson, 2001). In one pilot study of telepsychiatry in First Nation communities, there was a fairly high level of user satisfaction for both the client and the service provider (KO, 2002).

Shore and colleagues (2008) have explored telemental health for rural American Indian communities. They concluded that "safety nets" and emergency protocol (support resources and a plan to respond in the case of crisis or necessity), in addition to guidelines, are necessary to facilitate telemental health for these rural communities. Furthermore, collaboration with local service providers can be beneficial, as their knowledge of and connection to the community can help inform the process.

Shore has also pointed out an interesting dynamic that can exist within telemental health for rural American Indian communities (and often in telemental health in general) – the greater interpersonal space that exists within telemental health encounters can have different impacts. The distance can sometimes facilitate disclosure in some clients who might feel more comfortable being more physically distant from the clinician. The same effect has been documented in telepsychiatric services involving Canadian First Nation communities in Northern Ontario (K0, 2002). Nevertheless, in some circumstances the distance can potentially detract from the therapeutic relationship if a sense of connection is lacking. Finally, Shore has suggested that obtaining an understanding of the community's culture and their experiences

with different organizations (at different political levels), as well as their tribal history, can be important for successful telemental health experiences.

The holistic model of mental health and well-being that characterizes many First Nation communities is markedly different from the typical western model of mental health. The latter has traditionally focused on problems within the individual, and medical or individual therapeutic treatment is usually the intervention of choice. Within traditional First Nations models, an individual's well-being is seen within a much broader context. Hunter and colleagues (2006) elaborate on what holistic healing means for many First Nation communities, explaining that is a process of "following a cultural path, regaining balance (physically, spirituality, emotionally, and mentally), and sharing in the circle of life (respectful interactions with others)." This is a healing that is not time-specific and does not end with an intervention, but instead becomes a way of life. Some First Nations communities have been using telehealth and other ICT in working toward community wellness and healing, and in attempts to address social determinants of health (Molyneaux & O'Donnell, 2009). For instance, First Nation communities in Northern Ontario have successfully been using videoconferencing to unite Chiefs, community members, and service providers for planning of the H1N1 Pandemic response.

3. Case Study: KOTM's Telemental Health Program and Their Work with First Nation Communities

In spite of the many challenges discussed earlier in this paper, certain First Nation communities have found ways to develop successful telemental health initiatives. Keewaytinook Okimakanak Telemedicine (KOTM), operated under the Northern Chiefs Tribal Council in northwestern Ontario has been one of these success stories.

KOTM has used video conference for telepsychiatry since 2002. This was the first mental health service offered through the KOTM program. Since then there has been many service providers in the field that use video for, follow-up, reassessments, regular counseling sessions, education for clients, education for professionals, human resources, case management, and all of this is related to mental health services.

Keewaytinook Okimakanak has a Mental Health (KOMH) and Crisis program that supports the wellbeing of all 6 communities under that Tribal Council. They have worked towards a partnership with other mental health and social programs to augment KOMH and all the 26 communities in general. Their unique practice of mental health service delivery has inspired and encouraged other users (clients) to use the services and other the service providers to utilize the excising protocols, procedures and secure sites available in the communities. KOTM listens to what the communities want and need for services. One way in which to help the communities decide is to offer a wide range of mental health education sessions to keep them informed. Presentations are made to the Elders at the monthly Elders meetings; while the focus is not mental health per say, it is health related anything from prescription drug abuse to chair exercises. KOTM education coordinator looks for and supports professionals and coordinates community CTCs (Community Telemedicine Coordinators) to get the much needed factual, informative, relative information to all communities so that they can make requests that address their community needs.

4. Research Questions and Method

The following research questions guided the analysis of the data for this paper: What are the advantages to using telemental health for First Nations communities and individuals? What are the disadvantages or challenges to using telemental health for First Nations communities and individuals? How can telemental health be improved to better meet the needs of the communities?

Our analysis is based on preliminary data from the ongoing larger study – Telemental Health with First Nations project. This project is the result of collaboration between the National Research Council, the University of New Brunswick, and three First Nation organizations – located in Northern Ontario, Quebec, and Atlantic Canada in association with the VideoCom project (http://videocom.firstnation.ca). Partner representatives have provided expertise, feedback and support throughout various stages, such as the design of the project and measures, recruitment, contributions to papers and co-authoring.

The data presented in this paper are from in-depth interviews and an online survey. Individual interviews were conducted with mental health professionals (clinicians and non-clinicians) who had telemental health experience with First Nations individuals and communities. The national online survey is open to all mental health workers in Canada, and measures attitudes toward the use of ICT for mental health work.

Participants

Online survey participants. Fifty respondents to the online survey on ICT for mental health services reported having experience working with clients in remote and rural First Nations. Only the survey responses of those participants with this specialized experience were included in this analysis. Participants ranged in age from 18-64, with the majority falling in the 45-54 age group. Males represented 24.1% of the sample, and females 75.9%. Participants represented various provinces and territories, including Newfoundland and Labrador, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, and the Yukon. A wide variety of professional positions were represented among participants: social workers, psychologists, community workers, nurses, students, among others.

Interview participants. Five in-depth interviews were conducted with individuals who had experience working with telemental health in the First Nations context. These participants came from Nova Scotia, Ontario, and British Columbia. They held a variety of positions, including psychiatrist, psychologist, community engagement worker, administrator, and program developer.

Instruments

The *online survey* had 38 items including demographic information, personal use of technology, experience working with different populations, attitudes toward using videoconferencing, video, and patient portals, and other ICT for mental health work, and more. The online survey was created and administered through surveymonkey.com.

The *interview guide* focused on experience with telehealth and other ICT. Specifically, questions asked about: successes and challenges with ICT use (with a focus on videoconferencing), how to use ICT in the clinical context, how traditional First Nations practices can be included, and what is needed for better support of telemental health use. Limited demographic information (position, experience with population) is also collected using the interview guide.

Procedure

Online survey. A variety of recruitment methods were employed. These included poster advertisements distributed widely. Our First Nation partner organizations forwarded the information on to potential participants. Emails with a text advertisement for the survey were also circulated to potential participants. Certain provincial colleges of psychologists and social workers advertised the study to their members.

Interviews. Poster advertisements were also used to help with recruitment of interview participants. Four of the five interviews were conducted over videoconference, with the remaining conducted in person. Interviews were conducted one-on-one and lasted between 45 and 60 minutes.

The research protocols for this study were reviewed by the National Research Council's Research Ethics Board. All participants were treated in compliance with the ethical guidelines put forth by the American Psychological Association (APA, 1996).

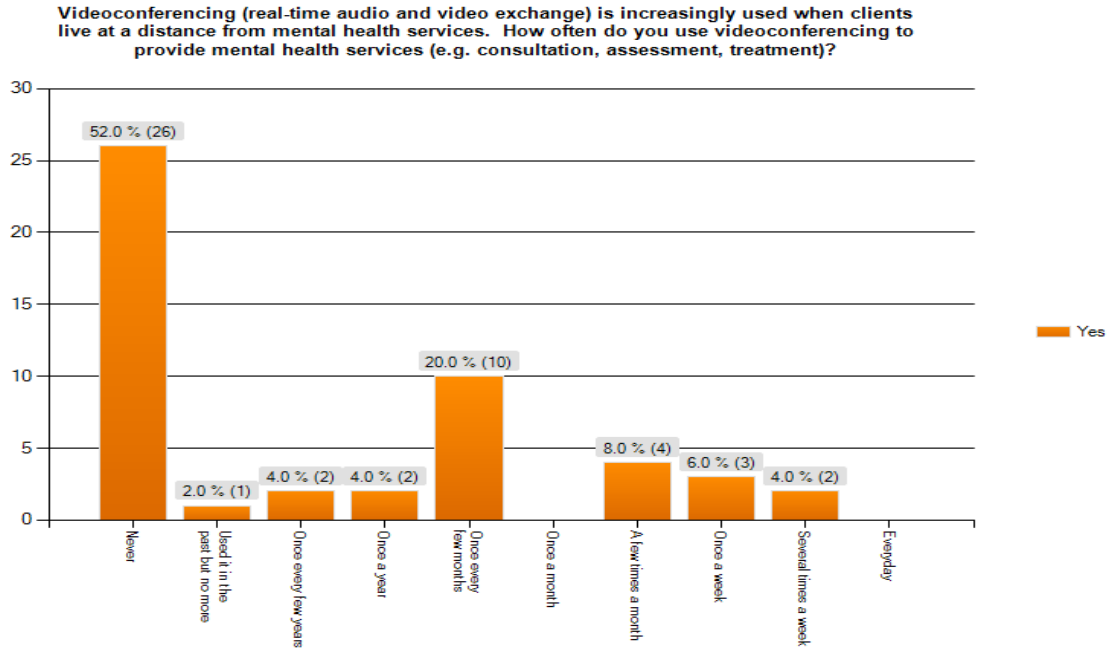
5. Research Findings

The data analysis for this preliminary investigation is restricted to reporting descriptive data and percentages for the quantitative data, with relevant quotes from the interviews related to each theme. Again, all the data reported here are from mental health professionals who work with clients in remote and rural First Nation communities.

5.1: How frequently is telemental health used?

As a starting point, we investigated participants' frequency of use of telemental health services. Chart 1 outlines their responses. It is interesting to note that 52% of respondents indicate no experience with telemental health. In addition, no participants reported everyday use of videoconferencing.

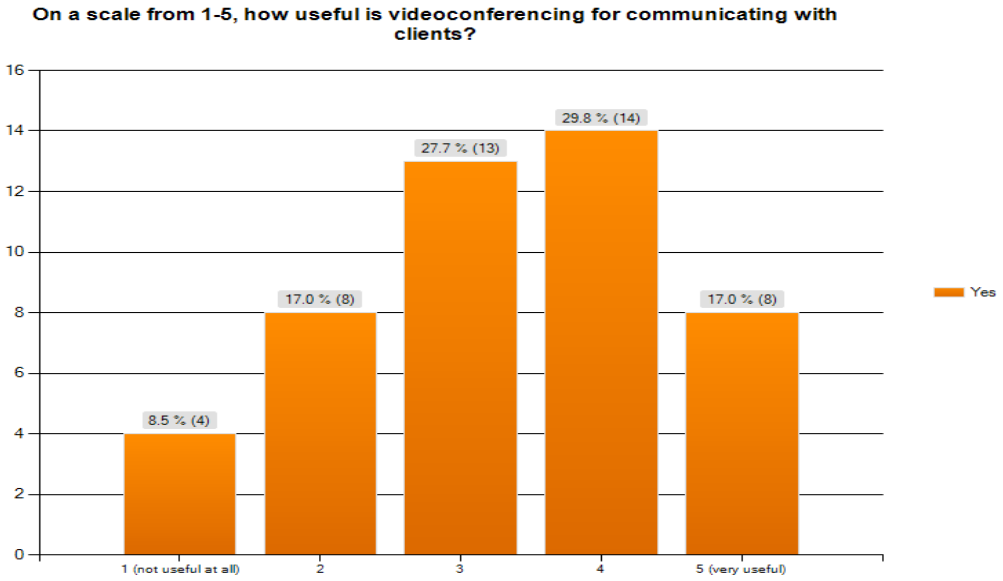
Chart 1: Frequency of videoconferencing use for telemental health



5.2: How useful is videoconferencing?

Participants were asked to rate how useful they found videoconferencing for communicating with clients. The response range was from 1 (not useful at all) to 5 (very useful). The mean response for this scale was 3.29, and the most common rating was a “4”, indicating a fairly moderate to high perception of usefulness among the responding mental health workers (Chart 2).

Chart 2: Perceived usefulness of videoconferencing



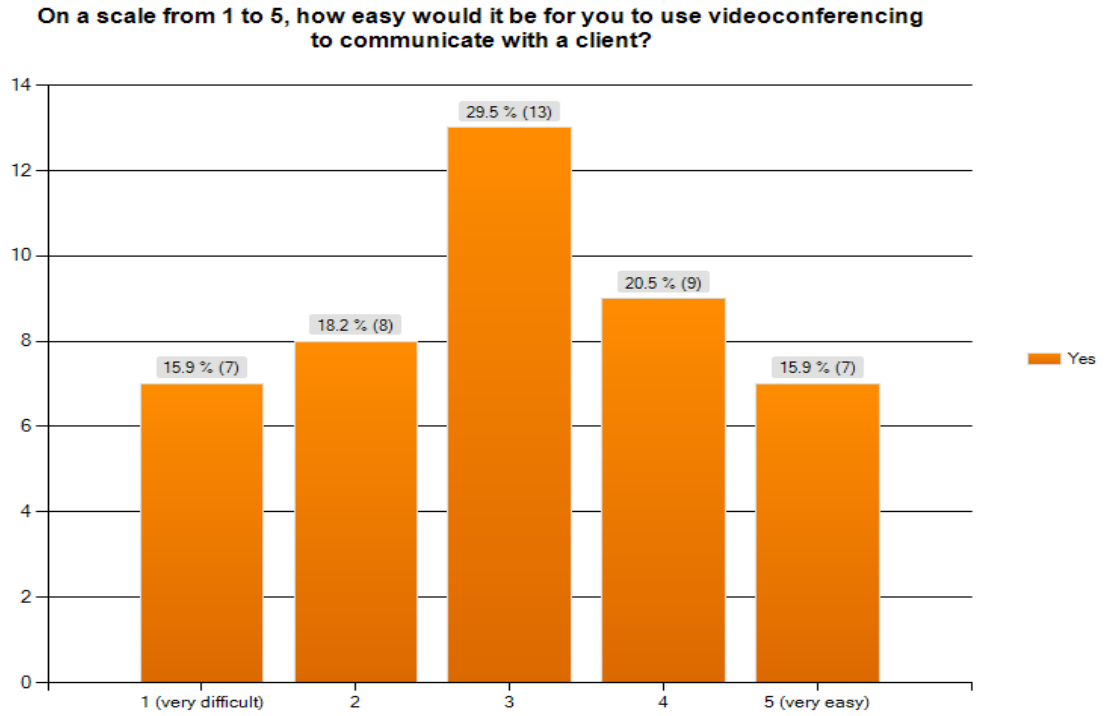
When an interview participant who was a clinical practitioner was asked about his evaluation of the usefulness of telemental health, he had this to say:

> *"I think it's absolutely invaluable. I can't imagine how we would do without it."*
> *- Interview participant*

5.3: How easy is it to use videoconferencing?

Participants were asked about the ease of use of videoconferencing. Survey participants rated the ease of use on a scale from 1 (very difficult) to 5 (very easy). Both the mean score and the common response were a 3 (Chart 3).

Chart 3: Perceived ease of use of videoconferencing



5.4: Does telemental health increase access to services?

Most participants (from both the survey and interviews) viewed telehealth as a way to increase access to services. Telemental health allows community members to remain in their communities while receiving services. The following quotes elaborate on the importance of this:

> *"We need professional mental health therapy, and also people, patients, clients would come out of the communities, and it would disrupt their whole lives, their lifestyle. And they would come into town with these problems, personal problems. How can they do it when they're away from home, and living in a hotel, and all the temptation that comes with it, drinking and drugs, and away from their family, away from their spouses? They*

need all that, all that support from home. And here they're expected to travel away from it – how can you heal under those circumstances?"
- Interview participant.

"Weather conditions make it often impossible to send clients via plane, this way they can stay in community and either use phone or video to access services."
- Survey participant.

5.5: Can distance be an advantage?

In a later discussion, we explain that the interpersonal distance created by the geographical distance and lack of in-person interactions can be a challenge for telemental health. However, some participants identified this same challenge as a benefit. They explained that certain clients may have a tendency to feel shy and somewhat uncomfortable around people, and the greater interpersonal distance can be an advantage to telemental health. This is exemplified in the following quote:

"Clients feel freer to disclose to people they won't see every day. Some clients are more comfortable with being one step removed, not in the room with a clinician, it is somewhat empowering."
- Survey participant

5.6: What are some professional and ethical concerns?

Some participants commented on how not being able to directly intervene during a crisis with a client makes them uncomfortable. The importance of having protocols and a "safety-net" ready for emergencies or crises during telemental health activities was highlighted.

"You have to train the mental health coordinators to be on hand when that should happen, and they have to have ability to find someone else in the community to make sure that the client is not left in a lurch… I'm always stressing that you need to have a back-up in case something happens…. Because we're so busy, we tend to forget about doing little things like that, that they can become a really big thing…"
- Interview participant

Some participants raised the concern of the appropriateness of ICT use for clients experiencing certain symptoms – paranoia, dementia, and visual or hearing challenges for example. Other participants felt that the first meeting with a client should be face-to-face, and then the remainder of meetings can be via telehealth. Others noted that some types of assessment and therapy would be difficult to deliver via telemental health.

"Initial consultations and suicide risk assessments would be difficult to deliver in this mode."
- Survey participant

Nevertheless, there were participants who expressed that face to face meetings were not always a necessary first step, and are not always possible.

5.7: What are some of the challenges?

Lack of adequate infrastructure was reported by several participants - the broadband network infrastructure within some of the isolated communities simply cannot support this type of technology. Indeed, within our own past research the obstacles of broadband communication within remote and rural First Nations communities have been highlighted (O'Donnell, Perley, Simms and Hancock, 2009). In several communities, the infrastructure has not been developed and therefore members simply cannot engage in video communications; this is clearly an obstacle to the increase use of telemental health.

> *"Here in Northern Canada (YT) there is little technological infrastructure outside of capital city Whitehorse."*
> *- Survey participant.*

Sustainable funding is a precious and scarce resource in telemental health service delivery. In addition to the general lack of funding for mental health care of First Nations individuals, telemental health programs in particular could benefit from receiving more financial support. Furthermore, funds allocated for research could be very beneficial but are rarely available. Many of the First Nations telemental health initiatives that are ongoing collect data as part of their program evaluations. Unfortunately, due to a lack of funding for research, much of their valuable data and findings go unpublished and important knowledge contributions are lost.

> *"I think one (challenge) is funding and sustainability, definitely. There is a monthly charge for communities to keep Telehealth in their community health centre. They do have to pay for that…so my challenge is try and come up with funding to keep that going."*
> *-Interview participant*

> *"The big issue, of course…is funding….we should have some separate funding for research."*
> *- Interview participant*

Limits to access were raised. Telemental health can increase access to mental health services; however the equipment needed for its use is often located in places in the community where it is not always accessible when it is needed. At the current time, the majority, if not all, telemental health initiatives within communities use videoconferencing systems like Polycom or Tandberg that are not easily transported, and cannot easily be used within a person's home. Often, communities only have one videoconferencing system, limiting the number of clients who can access services at a time. Further, because these communities are often very small, and clients frequently need to go into a band council or health centre to use the technology, their confidentiality and privacy can be compromised. This challenge is described in the following quotes:

> *"Because this is a program through (provincial health authority), we can't take the machine off the site. There's no way to connect it anywhere else in the community because of (health authority) security issues. And that's fair enough. It's their equipment. It's their policies….We're just waiting for the time when we can just do this on someone's*

PC, or do it on their laptop. We want the most secure thing, of course, but it will allow for a lot more freedom."
- Interview participant.

"Often the clients don't have the ability to access the technology and if they do it is the band office…then there are issues of confidentiality." - Survey participant.

Challenges with building and maintaining relationships were identified. All the quotes below demonstrate the concern held by many mental health professionals that telemental health might detract from rapport building and the therapeutic relationship with the client.

"Use of some tools would make the experience for the client very impersonal to the extent it may conflict with cultural expectations".
- Survey participant

"Many aboriginal people find it 'strange' to communicate via video."
- Survey participant

"(Telehealth) might trigger anxiety and discomfort in the client. Also there is lack of human warmth that is so vital to rapport building."
- Survey participant

Despite this significant and understandable concern, some participants who had experience making connections with clients through videoconference felt that this challenge could be overcome, as explained in the last quote. In addition, videoconferencing can actually provide continuity and consistency in therapeutic relationships. In rural and remote communities it is often difficult for the client to see the same counselor because of weather issues, holidays, or other reasons. Hence the client sees whoever it is that is coming in, or goes for months between visits. Sometimes a client will have to tell "their story" a few times to whatever therapist is available, and may have no choice but to see a new person. Video can eliminate these problems by its potential for consistency, use of a reliable network and proper scheduling.

"What's wrong with saying: I can't quite see your face, are you crying? Are those tears? Are you okay? I believe that there's some Kleenex on the table. So we don't have to know everything. We don't have to pretend that we know everything. And in fact, I believe that by me saying those things, makes me more real to my client…There's an immediate connection if I ask that question. That intimacy is like right there right now. That person cares. And you can usually tell."
-Interview participant

6. Ways Forward

Modified service models

Some clinicians are reportedly concerned that telehealth services might replace in-person services, and that the services clients receive will be diluted and less effective than those available to other urban populations. In addition, participants reported their concern for certain procedures and work with certain “types” of clients (and symptoms) to be carried out via telehealth.

Advocates of telemental health rarely suggest a complete transfer of service delivery from the traditional in-person mode to telehealth. Instead, they perceive telemental health to be complimentary to in-person services and not a complete replacement – and be a mode of service delivery when no other feasible options for service access exist. Within British Columbia, one mental health clinic has opted for a mixed in-person and telehealth service delivery approach – with the majority of services being delivered via videoconferencing (Brasfield & Clement, 2007). The following participant explains the benefits and importance of visiting the community that you are working with when delivering telemental health services:

> *“The psychologists and the psychiatrist have all been to the community too, which is also very important, we think, for this program. So clients have had a chance to meet them in person. They see what's in the community. We can tell them, okay, it's a remote community… but if you come and land in it, then you really get it. And if you've never lived rural or never lived rural and remote, you don't get it until you get there.”*
> *- Interview participant*

Inclusion of Traditional practices and beliefs

As discussed earlier, the holistic model of well-being and traditional First Nations practices that support it are important contributors to the level of wellness in many communities. Including traditional First Nations practices (e.g. sharing circles, smudging) and beliefs (The Seven Teachings) in telemental health initiatives can facilitate the acceptance and usability of the technology with First Nations communities. In a telepsychiatry evaluation by KO (2002), it was determined that in order to better meet the needs of the community, in addition to telepsychiatry services, the inclusion of more traditional healers and activities would be beneficial.

The following interview participant explained how she had been involved in facilitating some sharing circles that had taken place over videoconference. She elaborated on how some sharing circles and group processes might be easier to carry out through videoconference. For example, quitting smoking groups would likely require fewer resources than a support group or sharing circle for residential school survivors.

> *“We tried having sharing circles (over videoconference). That works really well. But people are still leery about it, but once we get going, it really works.”*
> *- Interview participant*

The second quote speaks to how one organisation has included the Seven Teachings within telemental health service delivery.

> *"We use love by including all First Nations. If anyone requests to join telemedicine, we don't refuse them. And we incorporate love and kindness by sharing everything that we have. And, another thing is that you show respect by working with both groups, First Nations and government, and treat them equally with mutual respect…because you need them, we need each other. And we show respect by meeting the needs of our communities and listening to our communities, and focusing in on our communities. That's the respect that we have, and respecting our leadership and advice, and recommendations by leadership and elders."*
> *- Interview participant*

In the following quote, the impact of the inclusion of the Seven Teachings on clients is explained:

> *"You have to let the clients know that we follow the Seven Teachings in our mental health program, and then that's the first thing that they see… and from there, if the client knows that the Seven Teachings are part of that mental health strategy, they'll feel more comfortable and feel more at ease, because they'll be familiar with them, and it's that familiarity that brings the openness and the trust level."*
> *- Interview participant*

Beginning with children

One significant characteristic of First Nations communities is the value they place on respecting the different generations – children, adults, and Elders. In keeping with this tradition, one interview participant suggested educating young people about the importance of telehealth. By creating a dialogue with the younger generations on the usefulness of ICT, this method of service delivery can potentially be sustained in the long term.

> *"You gotta start from kindergarten and teaching them what telehealth is … because they're the ones who are going to grow with it. To them it's going to become like a telephone…. I think kids are increasingly in the e-world. We'd improve our relationship by meeting them there."*
> *- Interview participant*

Creating a dialogue

As First Nation communities continue moving ahead in telemental health initiatives, it would be very beneficial to create and maintain a dialogue between communities. This will facilitate knowledge sharing and help inform those communities and organizations who wish to create or improve telemental health services. As a starting point, our Telemental Health with First Nations project, with the partnership of First Nation organizations in Ontario, Quebec, and Atlantic Canada, is organizing a multi-site videoconference event on the topic. This event will allow mental health professionals working with First Nation communities across Canada to share experiences and ideas in real-time. This event will take place in December 2009 and

hopefully be the start of an ongoing national dialogue on this topic (more details on this event can be found at mhandicts.knet.ca).

7. Conclusions

Overall, the mental health workers participating in this study see telemental health for First Nations as an advantageous and uncomplicated way to deliver services to remote and rural First Nation communities. Many have recognized the significant benefits of using telemental health (e.g., increased access and continuity in care). In addition, many of the benefits and challenges raised by these mental health workers are the same as those identified in past reports (e.g., KO 2002; Health Canada 2004). Similarly, many of the reservations about the technology and challenges identified have been raised in previous research.

There was a wide range of ratings on the usefulness and ease of use of telemental health. Nevertheless, the mean scores for both constructs were around 3 (average). These findings need to be interpreted within the context that 52% of the survey sample had never used videoconferencing. Interview participants, who typically had greater telemental health experience, reported high levels of perceived usefulness and perceived ease of the use of the technologies. It appears that the more telemental health experience one has, the more likely they are to see the benefits of the technology and perceive it to be user-friendly. Future in-depth analyses will investigate whether this finding is statistically significant.

A next important step will be to consult with community members and elders to explore their perspectives on telemental health; the authors are currently planning this next phase of the larger study.

8. Policy Recommendations

Policy recommendations can be made at a variety of levels. At the organizational level, KOTM currently has a policy manual in development, outlining their internal and organizational policies and incorporating the Seven Teachings (e.g. kindness, respect). It is the only telemental health policy manual that the authors are aware of that takes into account significant cultural aspects of First Nations communities. This serves as a potential model for organizing telemental health service delivery that attempts to maintain positive and respectful relationships with communities, leadership, and organizations.

KO Telemedicine's objective is to improve the health for all First Nation Communities through a sustainable First Nations telemedicine program that is holistic, community driven and culturally appropriate. Through KOTM's alliance with other technical programs such as KNET (KO network, servicing all of the northern communities in the Sioux Lookout Zone area) and OTN, Ontario Telehealth Network, they can offer these collaborative resources to service providers anywhere. KOTM enhances the existing services and looks to fill gaps through partnerships with service providers. The gap is education and capacity building for the clients and support staff within the remote communities. KOTM looks for ways to help support that gap, be it in-kind, proposal writing, advocating for program or sharing knowledge of funding pockets that may fit profile of the service.

Based on the preliminary results from this study, there are some initial recommendations that we would like to put forward. These recommendations have the objective of supporting the various levels and stakeholders in telemental health use.

- Increased funding.

Funding is needed from federal, provincial and regional partners to ensure successful telemental health delivery. Sustainable funding is necessary for telemental health services – both for the organisation providing the services, and for the community receiving them. In addition, it would be a great benefit if service providers (e.g. therapists, psychiatrists, psychologists, social workers, nurses) could have their telemental health services recognized and properly compensated via the same route as in-person health services. This will involve service agreements between providers working out of urban environments, such as hospitals and city or town health centers, and the health service providers in First Nation communities. Developing specific guidelines to facilitate this process will involve the professional associations to which the different mental health professionals belong. These recommendations would facilitate the building of partnerships between communities, service providers, and organizations.

- Technical infrastructure development

The technical infrastructure in remote and rural First Nation communities is often seriously underdeveloped and inadequate in comparison to urban areas. At this time, certain communities that could benefit from telemental health, because they are so isolated and have no other access to services, cannot access this method of service delivery because of a lack of infrastructure. Specifically, First Nation communities will need dedicated broadband networks capable of clinical-quality videoconferencing, with multiple points of access within communities. Fortunately, due to the efforts of many advocates in the area, the technical infrastructure in some First Nation communities is being further developed, one step at a time, as increased broadband network capacity reaches more communities across Canada. Some remote communities are developing their broadband infrastructure into new areas that will support more flexibility in service delivery (e.g. KO's new cellular network, Keewaytinook Mobile). However, much work remains to be done in this area.

- Increasing access within the communities to the videoconferencing systems.

Currently, the majority of videoconferencing systems in First Nations communities are located in schools, Band Council offices and health centers. These locations offer certain advantages (e.g. some aspects of personal security and security to the videoconferencing system) but also have disadvantages. Certain clients may feel uncomfortable going into these buildings to seek mental health services, as their anonymity can be compromised. If videoconferencing systems were more portable and flexible, more clients could likely be reached, and services could be expanded. The inclusion of more traditional First Nation practices might also be made possible with systems that were more flexible. In addition, in certain circumstances clients may desperately want to connect with a service provider from their own home. If a home computer could provide appropriate image and audio quality, as well as security, desktop videoconferencing could be another avenue to explore in an effort to increase access to services.

- Increased education and training for service providers.

A lack of knowledge and understanding of telemental health is a major barrier to clinician's use. Within mental health curricula in universities across Canada, there is typically very limited education and information provided on telemental health services. Mental health workers have traditionally met with their clients in face to face venues, and training and education focuses on this method. However, in order to better meet the needs of our clients, we must consider taking a step outside of our comfort zone and entertain other methods of service delivery. Education and training for mental health workers on telemental health use needs to begin at the earliest level possible. Mental health workers would benefit from having practicum experiences that allow them to develop and hone their therapeutic skills when working with clients who are not in the same room. One exciting avenue for education and training is to use the videoconferencing infrastructure existing in communities to support sharing and peer-learning among mental health workers in different communities. We are currently organizing a national multi-site videoconference event in early December 2009 specifically for this purpose.

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