

RESEARCH ARTICLE

Translating Anxiety-Focused CBT for Youth in a First Nations Context in Northwestern Ontario

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Abstract

Objective: We sought to evaluate a translation of anxiety-focused cognitive behavioral therapy (CBT) to a First Nations children's mental health provider in rural Ontario and to enhance our understanding of CBT challenges and adaptations unique to the First Nations context. **Methods:** The study was conceptualized as a mixed methods sequential explanatory approach using a quasi-experimental (before and after) design with quantitative and qualitative components. Data were produced in two ways: questionnaires completed by therapists, parents and clients pre- and post-training, and through a focus group with therapists working with First Nations clients. Participants of this study were a subset of a larger knowledge translation study involving ten agencies, and comprised nine therapists (two males and seven females), and seven children (six males and one female) from a single First Nations agency. The mean age of children was 11.8 years (± 2.71), comparable to children in other agencies. **Results:** First Nations therapists' scores on a child CBT knowledge questionnaire post-training did not differ from those of therapists in other agencies when controlling for initial values, suggesting comparable training benefit. Children did not differ between groups on any key measures, and all key measures showed improvement from pre- to post-training. Four key themes emerged from therapist focus groups: client challenges, value of supervision, practice challenges, and Northern/rural/remote challenges. **Conclusions:** The study highlights the importance of delivering a culturally appropriate CBT program to First Nations populations in Northern Ontario, and provides preliminary evidence of its effectiveness.

Key Words: cognitive behavioral therapy, cross-cultural, First Nations, mental health, children

Résumé

Objectif: Nous avons cherché à évaluer une adaptation de la thérapie cognitivo-comportementale (TCC) axée sur l'anxiété pour un prestataire de soins de santé mentale aux enfants des Premières nations en région rurale de l'Ontario, et à accroître notre compréhension des problèmes et des adaptations de la TCC propres au contexte des Premières nations. **Méthodes:** L'étude a été conceptualisée comme une approche de méthodes mixtes séquentielles explicatives à l'aide d'un devis quasi-expérimental (avant et après) avec des composantes quantitatives et qualitatives. Les données ont été produites de deux manières: des questionnaires remplis par les thérapeutes, les parents et les clients avant et après la formation, et à l'aide d'un groupe de discussion formé des thérapeutes travaillant avec les clients des Premières nations. Les participants à cette étude étaient un sous-ensemble d'une étude plus vaste du transfert des connaissances comportant

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dix organismes et composée de neuf thérapeutes (deux masculins et sept féminins), et sept enfants (six garçons et une fille) d'un seul organisme des Premières nations. L'âge moyen des enfants était de 11,8 ans ($\pm 2,71$), comparable aux enfants d'autres organismes. **Résultats:** Les scores des thérapeutes des Premières nations à un questionnaire sur les connaissances de la TCC après la formation ne différaient pas de ceux des thérapeutes d'autres organismes, après contrôle des valeurs initiales, ce qui suggère des avantages comparables de la formation. Les enfants ne différaient pas entre les groupes à aucune des mesures clés, et toutes les mesures clés montraient une amélioration entre avant et après la formation. Quatre thèmes principaux se sont dégagés des groupes de discussion des thérapeutes: les problèmes des clients, la valeur de la supervision, les problèmes organisationnels, et les problèmes des régions nordiques/rurales/éloignées. **Conclusions:** L'étude souligne l'importance d'exécuter un programme de TCC culturellement adapté aux populations des Premières nations du nord de l'Ontario, et fournit des données probantes préliminaires de son efficacité.

Mots clés: *thérapie cognitivo-comportementale, interculturel, Premières nations, santé mentale, enfants*

Cognitive behavioral therapy (CBT) is an effective, low-risk, evidence-based treatment for a variety of mental health conditions of childhood, but evidence is particularly robust for youth anxiety disorders (Compton et al., 2010). These disorders are highly prevalent and associated with substantial long-term morbidity (Esbjörn, Hoeyer, Dyrborg, Leth, & Kendall, 2010; Kessler et al., 2005). Therefore, it is unfortunate that anxiety-focused CBT is not available consistently in community settings (Kendall, Settapani, & Cummings, 2012), often limiting access to populations living near academic centers. First Nations youth have high rates of mental health problems including anxiety (Kirmayer, Brass, & Tait, 2000) and often live far from academic centers, underscoring the need to improve access to CBT in this population.

Efforts to translate CBT for children and adolescents to community settings have shown that supervision-based training can be effective for groups of community practitioners of various disciplines (Manassis et al., 2009). It appears to be efficacious regardless of whether the training is delivered face to face or via telelink (Manassis et al., 2009). Given the high burden of mental health problems including anxiety in First Nations youth (Smylie, 2008), it would be ideal if such training could be adapted to this population. Efforts at adaptation, however, have been hampered by the struggle by non-aboriginal CBT trainers to understand cultural factors that might impact the use of CBT in this context. Without such an understanding, it has been challenging to develop culturally appropriate manuals and other CBT materials specific to First Nations settings. Even when such culturally appropriate materials have been developed, they have not always proven more effective than 'standard' CBT manuals in First Nations youth (Miller et al., 2011).

Although it is a relatively new modality for addressing emotional difficulties in First Nations youth, some elements of CBT are highly consistent with First Nations perspectives. For example, encouragement to relate the mental, physical, and emotional aspects of health is common to both, though spiritual aspects are typically emphasized as well in the First Nations perspective (Young et al., 2013). First Nations healing practices are rooted in spirituality and connection to the land. Other elements of CBT contrast with First Nations

perspectives. For example, CBT is very structured and typically uses written exercises to help children learn coping strategies. First Nations traditions, however, generally place more emphasis on narrative and relational aspects of mental health care at all ages (Begoray & Banister, 2008), and on healing that comes from within the community. Moreover, children in First Nations communities may face social disadvantages that impact their treatment (e.g., high rates of poverty and of foster care placement) (Loppie-Reading & Wien, 2009; Smylie, 2008). Some families or communities may also harbor mistrust of mental health providers based on historical injustices (Castellano, Archibald, & DeGane, 2008). All of these factors underscore the need to work in partnership with First Nations mental health providers when adapting and evaluating CBT for children in First Nations communities, a practice that has been advocated for all Indigenous health research (Baydala, Saylor, & Ruttan, 2013).

Therefore, we elected to work in partnership with practitioners working within a First Nations agency in rural Ontario. Some of these practitioners were First Nations themselves. We relied upon their understanding of and mental health expertise with Indigenous youth to develop a culturally appropriate knowledge translation program for anxiety-focused CBT. In this program, a group of practitioners from a children's mental health agency connected with a CBT trainer based in an academic children's hospital weekly via telepsychiatry for case supervision-based training. A set of CBT manuals previously evaluated in academic settings was provided, with weekly discussion of cultural adaptations that might be helpful to the children being treated. Thus, practitioners faced the dual challenges of both learning CBT and adapting it to their clientele concurrently. Despite these challenges, we were hopeful that they could: 1) deliver CBT as effectively as practitioners learning CBT in non-First Nations settings; and, 2) help us learn about CBT challenges unique to the First Nations context and about some helpful ways of adapting CBT for this context. We addressed these two research objectives using mixed qualitative and quantitative methods.

Methods

Overview

The study was conceptualized as a mixed methods sequential explanatory approach using a quasi-experimental (pre- and post-) design with quantitative and qualitative components (Creswell, 2013). Data were generated in two ways: through questionnaires completed in pre- and post-training contexts by therapists and parents (quantitative component), and through a focus group with therapists working with First Nations clients (qualitative component). This study was part of a larger project evaluating knowledge translation of child CBT to ten mental health agencies in Northern Ontario.

Participants in Larger Project

Once research ethics approval was obtained, therapists were connected with the Toronto hub of Tele-Psychiatry through their participating agency (ten agencies in total). All therapists came from a variety of child therapy backgrounds, but were predominantly social workers and child and youth counselors. Therapists were required to have at least two years of prior child therapy experience. Each therapist was required to treat at least one anxious child using CBT (Coping Bear – an adapted version of Coping Cat) (Kendall & Hedtke, 2006; Manassis & Mendlowitz, 2008), and bring that case for group supervision during training sessions. Therapists selected children or adolescents from their caseload that had no previous CBT experience, but most had received prior mental health treatment. One 20-session group supervision training series was provided per agency, with didactic content based on the book “Cognitive Behavioral Therapy with Children, A Guide for the Community Practitioner” (Manassis, 2009). There were a total of 68 participants, 34 males and 34 females with an average age of 11.8 years ($SD = 3.0$) and 83 participating therapists (75 female and eight male).

Participants in Current Study

The First Nations agency that is the focus of this paper provides individual, family, and community services to First Nations people in a city in northwestern Ontario, and surrounding district. Many service providers within the agency are themselves First Nation, and rely upon both traditional, culture-based practices, and what might be termed Western evidence-based practice. Some providers are not First Nation but are nevertheless familiar with both types of practices. CBT was not the primary approach to addressing anxiety at this agency prior to this project. Prior to participating in the study, members of the agency welcomed the CBT trainer for the project to visit and become familiar with their organization, the community, and their previous experiences with evidence-based mental health treatments. Thus, a partnership evolved between the agency and investigators, allowing both to consider how CBT training could

be most effective, and could best augment the services already provided to clients. Nine (seven females, two males) therapists participated from the First Nations agency and seven children (six males and one female). Child participants in this agency were comprised of First Nations children in Northwestern Ontario, who typically face many social and economic challenges (Loppie-Reading & Wien, 2009; Smylie, 2008).

Procedure

After consenting to participation in the training and the study, therapists in Northern Ontario completed a multiple-choice questionnaire on principles of child CBT. This was repeated after training. Therapists also reported their extent of prior therapy experience (years), prior CBT experience (months), confidence using CBT, and application of CBT techniques before and after training. The latter two ratings used a ten-point Likert-type scale.

After providing informed consent (or assent in the case of young children), families were asked to complete pre-treatment and post-treatment questionnaire packages. Children completed the Multidimensional Anxiety Scale for Children (March, Parker, Sullivan, Stallings, & Conners, 1997) and the Children’s Depression Inventory (Kovacs, 1984), given the high comorbidity among internalizing disorders. Parents completed the Child Behaviour Checklist (Achenbach & Rescorla, 2007) and a set of questions regarding basic demographics.

Questionnaires:

All psychometric properties for standardized questionnaires are based on North American, largely non-Aboriginal samples.

The Child CBT Multiple Choice Test (CQ)

The Child CBT Multiple Choice test is the only existing questionnaire for measuring trainees’ knowledge of anxiety-focused child CBT. Using the CQ is consistent with the learning objectives of the training program. The CQ has demonstrated face validity and responsiveness to training-related changes in therapist knowledge (Manassis et al., 2009). Other psychometric properties await further evaluation. The CQ consists of 20 multiple-choice questions pertaining to childhood anxiety, cognitive behavioral principles, and clinical vignettes illustrating common treatment challenges.

Multidimensional Anxiety Scale for Children

The Multidimensional Anxiety Scale for Children (MASC) was developed by March et al. (1997) to measure severity of child anxiety symptoms from age eight to 19 years. This measure has 39 items rated on a four point Likert-type scale ranging from “Never true about me” to “Often true about me”. Total MASC scores were used to measure self-reported anxiety in this study. This measure shows excellent

internal reliability ($r=.82-.9$), satisfactory to excellent test-retest reliability (ICC scores = $.785-.933$), and adequate convergent and divergent validity (March et al., 1997).

Child Behaviour Checklist

The Child Behaviour Checklist (Achenbach & Rescorla, 2007), provides a combination of qualitative and quantitative questions on child symptoms. Only quantitative data is reported in this study. The CBCL has very high test-retest reliability ($r=.90$), high internal consistency ($r=.63-.79$), and there is empirical support for content validity, criterion-related validity and construct validity (Achenbach & Rescorla, 2007). Within this study the CBCL Syndrome Scale – Anxious/Depressed is used to measure anxiety.

Children's Depression Inventory

The Children's Depression Inventory evaluates the presence of specific depressive symptoms in children (Kovacs, 1984) rated on a scale of 0-2, with 0 representing the absence of that symptom and 2 representing the severe form of the symptom. The CDI is well-validated for children between the ages of eight and 13 (Kovacs, 1984; Saylor, Finch, Spirito, & Bennett, 1984).

Data Analysis

Quantitative

All data were checked for normality and outliers. All assumptions of normality were met so no transformations or removal of outliers were performed. In the event of a small number of individual missing items, the mean value for the relevant subscale was imputed, within the valid scoring parameters of the measure (Shrive, Stuart, Quan, & Ghali, 2006). If a larger number of items were missing or entire measures were missing, corrections were not made.

Frequencies, percentages, cross-tabulations, Welch's t-test (best for unequal sample size and possibly unequal variances), and ANCOVA analyses were computed using Stata version 11.0 (StataCorp, 2009). To evaluate changes in therapist knowledge and child anxiety (separately by child and parent-report), pre-training and post-training scores were compared using Welch's t-tests. Similarly, to compare key clinical measures between children seen at the First Nations agency and those seen in other agencies (both pre- and post-treatment), Welch's t-tests were conducted. Results are reported uncorrected for number of comparisons, given the exploratory nature of the study.

To examine between-group differences in the change of therapist knowledge and confidence, an ANCOVA controlling for pre-treatment scores was used (appropriate, as data met the assumption of regression homogeneity).

Fisher's exact two-tailed test was used to examine if location of children (First Nations agency vs. other agency) was associated with various categorical variables (e.g., parent relationship, age, sex, parent's education attainment level,

family history of anxiety, and rate of children with a known learning problem).

Qualitative

A focus group was conducted with five participants (therapists) from the First Nations agency. It was conducted using a semi-structured interview guide to help explain and provide a deeper understanding of the quantitative findings. All other agencies also participated in focus groups, but these are not examined in the present paper.

Each theme is broken down into various subthemes that were analyzed from the focus group transcript with the goal of theory generation using a grounded theory approach (Glaser & Strauss, 2009; Strauss & Corbin, 1990). This inductive work and the associated findings are based on commitment to the participants' points of view. The iterative steps for this analysis included reading and re-reading the transcribed interviews (Creswell, 2013; Hartley, Britain, & Sulzbacher, 2002). Analysis began with topic coding to identify all material on the topic of CBT as evidence based treatment for a number of mental health conditions of childhood. This type of coding was descriptive and provided an accurate account of the varieties of retrieved material from the focus group transcripts. First, the interviews were transcribed and entered into NVivo 8 (QSR, 2007) and themes identified by frequency using the code node feature of NVivo 8. Next, the interviews were re-read and the theme coding transitioned from descriptive to analytic using an iterative process. This process was used to demonstrate and develop categories thematically. Analytic coding allowed for the creation of categories by questioning the data about the new ideas developing in the new subthemes and themes. Moreover, it allowed for the exploration and development of new categories and concepts (Hartley et al., 2002).

Rigour

Rigour was ensured in several ways. We consulted with other members of the research team prior to and during the analysis process. Agreement on the overall analysis strategy, coding categories, and the principal themes represent important commitment to the integrity of the study. Additionally, data collection and analysis were reflexive and iterative in nature. Being explicit and as self-aware as possible about personal assumptions, values and biases, and how they may come into play during the study contributed to the study's confirmability (Miles & Huberman, 1994). Clarity in investigator role coupled with data checks (e.g., for bias, deceit, informant knowledgeability, etc.) contributed to the study's reliability (Miles & Huberman, 1994).

Table 1. Demographic and clinical variable means and rates between groups

	First nations agency	Other agencies
Mean (SD) age of children	11.8, 2.70 (n=7)	11.8, 3.01 (n=61)
Males/Females	6 (85.7%) / 1 (14.3%)	28 (45.9) / 33 (54.1%)
Mothers with at least some post-secondary education	50.0% (n=3)	77.8% (n=42)
Fathers with at least some post-secondary education	57.1% (n=4)	78.8% (n=37)
Rate of children on medication	42.9% (n=3)	48.2% (n=27)
Rate of children with known family history of anxiety	20.0% (n=1)	46.3% (n=25)
Rate of children with a known learning problem	60.0% (n=3)	35.7% (n=20)

Results

Quantitative

The demographic characteristics of the participants for both groups are shown in Table 1. There were no statistically significant differences in any of the variables analyzed. In the children's group, the mean age of children from the First Nation agency was 11.8 years (± 2.71) compared to 11.8 years (± 3.01) in the full sample. In the therapist group, there were nine (seven females, two males) therapists participating from the First Nation agency and 74 (68 females and six males) from the other agencies.

Table 2 shows comparisons for clinical measures between First Nations participants and therapists and those at other agencies using Welch's *t* test. Mean scores for therapist knowledge were lower pre-treatment at the First Nations agency than those at other agencies [$t(30.0) = -5.77, p < .001$]. Both groups' knowledge scores increased post-treatment, but scores were still lower for First Nations participants [$t(47.0) = -7.67, p < .001$]. Additionally, therapists at the First Nations agency reported higher 'confidence as CBT therapist' mean scores compared to therapists at the other agencies $t(23.3) = 2.21, p = 0.03$. On average, self-rated confidence increased post-treatment compared to pre-treatment for both groups of therapists. There were no significant group differences either pre- or post-treatment for the CBCL, MASC, or CDI scores. There were no differences in pre-scores between the therapist groups.

Table 3 shows the results of the ANCOVA. We examine whether there was an overall statistically significant difference in post-treatment mean scores between the therapists at the First Nations agency and those at other agencies once their means had been adjusted for pre-treatment knowledge and confidence mean scores. There were no statistically significant differences between the groups when adjusted for knowledge and confidence mean scores, $F(1, 49) = 0.359, p = 0.55$.

Qualitative

The primary author (BN) coded the themes. Analysis of the semi-structured interviews yielded four core themes we termed: client challenges, value of supervision, practice challenges, and northern/rural/remote barriers to mental

health services. Given the limited space for publication, we have not listed the subthemes for each theme. Examples of each are provided below.

Theme 1: Client challenges

One of the respondents discussed their experience working with First Nations children and families and how the CBT framework is helpful for treating mental health problems:

"Definitely, the First Nations kids, youth, people in small communities don't have a lot of resources, so it's really, I'll say, awkward, to accomplish things. And the coping idea and theme of the whole, sessions and everything really helped him a lot because now he can see that there are problems that he can deal with and manage and cope with, it's just finding something."

Supporting the literature, one respondent discussed challenges that may result from historical factors when working with First Nation communities:

"Another one is, is the rapport building and trust piece, particularly in, and I don't know that it's, it's not necessarily cultural in terms of, you know, pure traditional First Nations' cultures, but rather, might fall from a more colonial history of disempowerment and distrust of different systems that make it difficult for a young person to come in on day 1 with the expectation that they're going to enter into a relationship with a stranger in the room, in a way that is going to help them...you know, you have to build that relationship a little more and perhaps in a different way..."

Theme 2: Value of supervision

Several participants stated that they enjoyed sharing cases with colleagues and having a better and more comprehensive understanding of cases by using group supervision as a learning tool:

"I found it great. It was nice to be able to share cases and hear about what other people are dealing with and yeah, it was very helpful to the child. He learned a lot from it, as well as the parents. A lot of these ideas and concepts, I find I understand them better and have a name to them, and just from my life and everything."

Table 2. Pre and post-treatment mean and standard deviations by group

	Pre-Treatment		Post-Treatment	
	First nations agency Mean, SD (n)	Other agencies Mean, SD (n)	First nations agency Mean, SD (n)	Other agencies Mean, SD (n)
Therapists				
Years of experience	9.78, 9.89 (n=9)	10.5, 8.50 (n=66)	N/A	
Time using CBT techniques	29.3, 12.4 (n=7)	38.6, 19.5 (n=68)	40.0, 28.2(n=4)	42.0, 18.2(n=45)
Confidence as CBT therapist*	6.11, 0.93 (n=9)	5.15, 2.33 (n=72)	7.40, 2.70(n=5)	7.15, 1.44(n=51)
Therapists knowledge**	11.9, 1.05 (n=9)	14.8, 3.05 (n=71)	13.2, 0.45 (n=5)	16.9, 3.10 (n=51)
Apply CBT techniques	6.50, 1.51(n=5)	5.04, 2.26(n=72)	6.80, 3.35(n=5)	7.21, 1.58 (n=51)
Children				
Anxious Depressed(CBCL)(t-scores)	66.7, 5.35, (n=6)	70.0, 10.5 (n=53)	64.0, 13.5 (n=3)	62.5 8.60 (n=35)
MASC (total t-scores)	63.8, 12.7 (n=6)	64.2, 11.5 (n=58)	19.8, 13.2 (n=6)	16.1, 13.0 (n=39)
CDI (total raw scores)	16.4, 4.90 (n=7)	14.9, 8.83 (n=58)	12.0, 4.56, (n=6)	11.0, 8.46 (n=34)

**p<0.01, ** p<0.05. MASC Total and CBCL are reported in t scores.
MASC = Multidimensional Anxiety Scale for Children, and CBCL = Children's Behavioural Checklist.

Table 3. ANCOVA results for therapists by confidence and knowledge scores

Measure	First nations agency			Other agencies		
	Mean	SD	n	Mean	SD	N
Therapists knowledge scores	13.2	0.45	5	16.8	3.2	48
Confidence scores	7.4	2.7	5	7.2	1.47	48
Adjusted R ² =0.537						

But it was also good to challenge myself and just, different concepts and also with my peers out there and coworkers, that's their view, my view, but can we cross-link those views and concepts together, I mean, it was interesting for me that way."

Others stated the benefits of having access to the expertise of a master clinician:

"I think having access to (master clinician) and her expertise in child intervention, to help facilitate I guess, our peer supervision, was really, really helpful, and many heads solving issues was, often times better than just one person because, sometimes you can feel as though you're working in a vacuum."

Theme 3: Practice challenges

Pragmatic challenges were also identified as issues that therapists need to balance within their practice, alongside the complexities of some of their clients:

"...you know, just managing the week by week structure of that given the complexities of some of our clients and some of the contexts in which they're living and how their lives are. Sometimes it can be quite chaotic for some of the kids so you know, to expect that weekly, at the same time, you're always going to be able to meet and you're always going to be able to sort of engage in this kind of format can be

challenging and I think maybe some of our clinicians found, or were finding that piece a bit of a challenge at times."

The need for regular, structured sessions was not only seen as challenging for clients but for therapists as well, as many had a large number of competing professional demands (e.g., needing to respond to crisis situations with other clients; organizing meetings to avoid conflicts with CBT sessions or with supervision) as well as trying to maintain a successful work-life balance.

Theme 4: Northern/Rural/Remote challenges

Clients in rural and northern communities are on average more severely impaired, from lower socioeconomic status and have lower levels of education (Wilson et al., 2009). Individuals and communities also have less access to health care than people in urban areas (Wilson et al., 2009). The large geography and relatively small, dispersed population poses further challenges. A respondent elaborates on some of these unique challenges and his adaptation to them:

"I liked that we were able to do it through the Telesite technology because with travel, it becomes really costly, especially living on, up north, I want to say a reserve, but Moosonee's not a reserve. So negative things, unfortunately, would be, how feasible this program is because sometimes we're not able to see

our clients for 3 weeks or even a month, just because of travel or they're busy or, as emergencies come up so sometimes it was hard to see every day, or once every week because we didn't always have something to report. And I don't think that would be as common for the southerners."

Discussion

The objectives of this study were to evaluate the knowledge translation of child CBT to a First Nations setting, provide a greater understanding of CBT challenges unique to the First Nations context, and explore helpful ways of adapting CBT to this setting. Although limited by small sample size, the results of the study support these objectives.

The quantitative findings show that therapists working at the First Nations agency had lower pre-treatment knowledge mean scores than therapists from other sites, consistent with the fact that CBT was not the primary approach to anxiety at this agency prior to the project. However, therapist knowledge improved significantly with training. In fact, gains in knowledge were comparable across sites suggesting comparable training benefit. The fact that clinical outcomes by child and parent report were similar across sites supports this idea.

First Nations agency therapists faced the dual challenges of learning and applying CBT with their clients in a culturally appropriate manner. By contrast, similar previous knowledge translation efforts to Indigenous populations have provided culturally adapted manuals to therapists (Miller et al., 2011). Our results suggest that cultural adaptation by training therapists is feasible, is respectful of trainees' cultural and therapeutic expertise, and could potentially accelerate knowledge translation of CBT to diverse cultures. With guidance, training therapists appear capable of using a manual effectively and adjusting the content to their clients' culture and context. Outcomes might have been different without such adaptations, or in an agency without a First Nations philosophy.

The qualitative findings complemented and further explained our statistical results. We identified four themes: *client challenges*, *value of supervision*, *practice challenges*, and *Northern/rural/remote challenges*. In relation to client issues, therapists working at the First Nations agency identified challenges related to working with clients that came from communities with limited resources, and identified the ability to develop therapist-client relationships that were therapeutic in non-specific ways (e.g., providing role modeling for clients). When they were able to develop such relationships effectively by slowly establishing trust, client change was possible (see Theme #1 – Client Challenges). The fact that some youth were not living with their biological parents may have further increased the importance of the therapeutic relationship in facilitating change.

We also found that quality of work life and balance between work and outside responsibilities was important for therapists at the First Nations agency (see Theme #3 – Practice challenges). In terms of patient and practitioner benefits, some of the therapists highlighted the importance of having the expert advice of a master clinician, of learning new skills and competencies, and of collegial interactions that were readily available to combat professional isolation and increase professional collaboration (see Theme #2 – Value of Supervision). However, the highly structured nature of CBT posed some pragmatic and practice challenges for therapists (see Theme #3 – Practice challenges).

The large geographic area and relatively small, dispersed population of Northern Ontario presents mental health professionals with service delivery challenges. First Nations therapists identified access to mental health services as being integral to the community. This finding is consistent with a previous study regarding access to mental health services in rural Ontario (Boydell et al., 2006). These researchers used a series of 30 qualitative interviews with parents and key service providers in rural Ontario, to identify themes including: i) accessibility; ii) integration; iii) early intervention; iv) education and promotion; v) school and child care; vi) parental support; and, vii) rural approach to service delivery (Boydell et al., 2006). Rural communities clearly differ from urban communities in these respects, and as such deserve specific solutions to improve access to children's mental health services. Similar conclusions regarding access to adult mental health services for rural residents have also been reported (Gorman et al., 2007; Judd & Humphreys, 2001).

There are several limitations to this study. Measurement error is possible, as measures used have not been standardized for Aboriginal samples. Further research to validate relevant measures in this population is indicated. Quantitative findings are limited by small sample size, low return rate of some questionnaires (see Table 2), use of non-standardized therapist measures, and imbalance between males and females among clients at the First Nations agency relative to other agencies. Recall bias of participants regarding past attitudes and behaviors is an important limitation of the qualitative findings. Further, not all therapists participated in the focus group, so potentially important information from non-participants may have been missed.

Conclusion

The delivery of services in rural and northern communities warrants attention from mental health providers. Access is challenging, particularly for clients in First Nations communities. Our findings suggest that an anxiety-focused CBT training program that is adapted by local providers to be culturally appropriate to First Nations clients in the region may improve access to a desperately needed mental health service: child CBT. In future, this training model may allow

knowledge translation of CBT or other evidence-based treatments to further cultural groups.

Acknowledgements/Conflicts of Interest

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References

- Achenbach, T. M., & Rescorla, L. A. (2007). *Multicultural Supplement to the Manual for the ASEBA School-Age Forms & Profiles*. Burlington, VT: Research Center for Children, Youth, & Families.
- Baydala, L., Saylor, K., & Ruttan, L. (2013). Meeting standards for community-engaged Aboriginal health research. *Paediatrics & Child Health, 18*(1), 8.
- Begoray, D. L., & Banister, E. (2008). Learning about Aboriginal contexts: The reading circle approach. *The Journal of Nursing Education, 47*(7), 324-326.
- Boydell, K. M., Pong, R., Volpe, T., Tilleczek, K., Wilson, E., & Lemieux, S. (2006). Family perspectives on pathways to mental health care for children and youth in rural communities. *Journal of Rural Health, 22*(2), 182-182.
- Castellano, M. B., Archibald, L., & DeGane, M. (2008). *From Truth to Reconciliation: Transforming the Legacy of Residential Schools*. Ottawa, ON: Aboriginal Healing Foundation.
- Compton, S. N., Walkup, J. T., Albano, A. M., Piacentini, J. C., Birmaher, B., Sherrill, J. T.,... Waslick, B. D. (2010). Child/adolescent anxiety multimodal study (CAMS): Rationale, design, and methods. *Child and Adolescent Psychiatry and Mental Health, 4*(1), 1.
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*: Sage Publications, Incorporated.
- Esbjörn, B. H., Hoeyer, M., Dyrborg, J., Leth, I., & Kendall, P. C. (2010). Prevalence and co-morbidity among anxiety disorders in a national cohort of psychiatrically referred children and adolescents. *Journal of Anxiety Disorders, 24*(8), 866-872.
- Glaser, B. G., & Strauss, A. L. (2009). *The discovery of grounded theory: Strategies for qualitative research*: Transaction Publishers.
- Gorman, D., Buikstra, E., Hegney, D., Pearce, S., Rogers-Clark, C., Weir, J., & McCullagh, B. (2007). Rural men and mental health: Their experiences and how they managed. *International Journal of Mental Health Nursing, 16*(5), 298-306.
- Hartley, D., Britain, C., & Sulzbacher, S. (2002). Behavioral health: Setting the rural health research agenda. *The Journal of Rural Health, 18*(5), 242-255.
- Judd, F. K., & Humphreys, J. S. (2001). Mental health issues for rural and remote Australia. *Australian Journal of Rural Health, 9*(5), 254-258.
- Kendall, P. C., & Hedtke, K. A. (2006). *The Coping Cat Workbook* (2nd ed.). Armore, PA: Workbook Publishing.
- Kendall, P. C., Settapani, C. A., & Cummings, C. M. (2012). No need to worry: The promising future of child anxiety research. *Journal of Clinical Child & Adolescent Psychology, 41*(1), 103-115.
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*(6), 593-602.
- Kirmayer, L. J., Brass, G. M., & Tait, C. L. (2000). The mental health of Aboriginal peoples: Transformations of identity and community. *The Canadian Journal of Psychiatry/La Revue canadienne de psychiatrie, 45*(7), 607-616.
- Kovacs, M. (1984). The Children's Depression, Inventory (CDI). *Psychopharmacology Bulletin, 21*(4), 995-998.
- Loppie-Reading, C., & Wien, F. (2009). *Health Inequalities and Social Determinants of Aboriginal Peoples' Health*. Prince George, BC: National Collaborating Centre for Aboriginal Health, University of Northern British Columbia.
- Manassis, K. (2009). *Cognitive Behavioral Therapy with Children: A Guide for the Community Practitioner [Paperback]* New York, NY: Routledge.
- Manassis, K., Ickowicz, A., Picard, E., Antle, B., McNeill, T., Chahauver, M. A.,... Adler-Nevo, G. (2009). An innovative child CBT training model for community mental health practitioners in Ontario. *Academic Psychiatry, 33*(5), 394-399.
- Manassis, K., & Mendlowitz, S. (2008). *Coping Bear Treatment Package*. Los Altos, CA: Sociometrics Corporation.
- March, J. S., Parker, J. D., Sullivan, K., Stallings, P., & Conners, C. K. (1997). The Multidimensional Anxiety Scale for Children (MASC): Factor structure, reliability, and validity. *Journal of the American Academy of Child & Adolescent Psychiatry, 36*(4), 554-565.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*. Thousand Oaks, CA: Sage Publications.
- Miller, L. D., Laye-Gindhu, A., Bennett, J. L., Liu, Y., Gold, S., March, J. S.,... Waechter, V. E. (2011). An effectiveness study of a culturally enriched school-based CBT anxiety prevention program. *Journal of Clinical Child & Adolescent Psychology, 40*(4), 618-629.
- QSR. (2007). *N'Vivo Version 8 for Windows*. Doncaster, Australia: QSR International Pty Ltd.
- Saylor, C. F., Finch, A., Spirito, A., & Bennett, B. (1984). The children's depression inventory: A systematic evaluation of psychometric properties. *Journal of Consulting and Clinical Psychology, 52*(6), 955.
- Shrive, F. M., Stuart, H., Quan, H., & Ghali, W. A. (2006). Dealing with missing data in a multi-question depression scale: A comparison of imputation methods. *BMC Medical Research Methodology, 6*(1), 57.
- Smylie, J. (2008). The health of Aboriginal people. In D. Raphael (Ed.), *The Social Determinants of Health: Canadian Perspectives*. Toronto, ON: Canadian Scholars Press.
- StataCorp. (2009). *Stata statistical software: Release 11.0*. College Station, TX: Stata Corporation.
- Strauss, A., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Sage Publications, Inc.
- Wilson, N. W., Couper, I. D., De Vries, E., Reid, S., Fish, T., & Marais, B. J. (2009). A critical review of interventions to redress the inequitable distribution of healthcare professionals to rural and remote areas. *Rural and Remote Health, 9*(2), 1060.
- Young, N. L., Wabano, M. J., Burke, T. A., Ritchie, S. D., Mishibinjima, D., & Corbiere, R. G. (2013). A process for creating the Aboriginal Children's Health and Well-Being Measure (ACHWM). *Canadian Journal of Public Health, 104*(2), e136-e141.