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Violence and Resilience: A Scoping Review of Treatment of Mental Health Problems for Indigenous Youth

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Abstract:

Indigenous communities have sustained multiple layers of trauma across generations in their lands and social ecology. Considering services utilization as a potential resilience process and cultural as a resilience resource, Western mental health approaches have been modified and applied to Indigenous youth. A scoping review framework was utilized to explore the available research evidence regarding mental health treatment for Indigenous youth; eight articles were reviewed. The majority of interventions were based in a Cognitive Behavioural Therapy model. These interventions were effective and perceived as culturally acceptable. The results support incorporating traditional cultural activities in the treatment of mental health concerns. Development of traditional and cultural applications, especially those that may serve to bolster resilience, and measuring resilience as an outcome, is needed.

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Introduction

The Indigenous[1] population in Canada composes 4.3% of the total population and this proportion is growing rapidly; youth aged 14 and under compose 28% of this population, while those ages 15-24 account for an additional 18.2% (Statistics Canada, 2011). Across Canada, 49.3% of First Nations people reside on-reserve, however this does vary across the provinces (Statistics Canada, 2011). And nearly half of these individuals experience mental health difficulties, compared to only one-third of the majority Canadian population (First Nations Information Governance Centre [FNIGC], 2012; Snowshoe, Crooks, Tremblay, Craig, & Hinson, 2015). This is due, in part, to the sustained rates of sexual and non-sexual violence for Indigenous youth (25.4% of Indigenous individuals, compared to 19.4% of Non-Indigenous individuals; Brownridge et al., 2016). The need to bolster mental health resources in meaningful ways within Indigenous communities has also been recognized (Kielland & Simone, 2014).

Adolescence marks the time when mental health difficulties originate or become particularly challenging, and the risk for death by suicide is relatively high (Mental Health Commission of Canada, 2015). Indigenous children are at an increased risk for poor mental health outcomes, which can be partially attributed to the historical, systemic violence directed at this group, including physical, sexual, emotional abuse, and neglect in being removed from family and community, as well as being second or third generation residential school survivors (Statistics Canada, 2011). Prior generation residential school attendance impacts contemporary health and well-being for off-reserve First Nations, Métis and Inuit Canadians (Hackett, Feeny, & Tompa, 2016). This attendance disrupted family relationships and is part of the sequelae of historical trauma faced by peoples following the displacement of

1 The term "Indigenous" is used internationally to describe those people native to a specific geographic location. The term "Aboriginal" refers to those peoples who are indigenous to North America and encompasses First Nations, Métis, and Inuit people (Indian and Northern Affairs Canada, 2002).

communities and placement of children outside of community, and an overwhelming burden of suffering in day-to-day living due, in part, to the context of no, delayed, limited or contentious resources (Brave Heart, 2003). Second generation survivors of residential schools experience a variety of poor outcomes directly related to this intergenerational trauma including greater depressive symptoms and an increased likelihood of attempting suicide (Bombay, Matheson, & Anisman, 2011; First Nations Information Governance Committee [FNIGC], 2005).

Indigenous children and youth are also subject to re-victimization patterns from child maltreatment to adult intimate partner violence (Kong, Roh, Easton, Lee & Lawler, 2016). Poor mental health outcomes arising from this exposure include depressive symptoms and fearful attachment, raising concern as to how to ensure that a trauma-informed approach is prioritized and appropriately contextualized (Kong et al., 2016). Children and youth living within Indigenous communities are also exposed to land-based trauma, where the ongoing requirement to defend and protect land and water resources is heightened with environmental concerns over corporate and governments challenges to treaty rights (King, Smith, & Gracey, 2009; Kirmayer, Gone, & Moses, 2014).

Indigenous women and girls also experience disproportionally greater violence compared to both non-Indigenous and male counterparts. The results of this violence include reduction in leadership roles, degraded sexuality, and attempts at undermining resilience factors, such as connectedness and cultural practices (Oliver et al., 2015). Further, while homicide rates have declined for the general population, they have remained unchanged for Indigenous females. In this light, addressing gendered violence is not only a justice issue, but also a public health concern (Patrick, 2016). Finally, there are challenges to effectively obtained federally-approved supports for health.

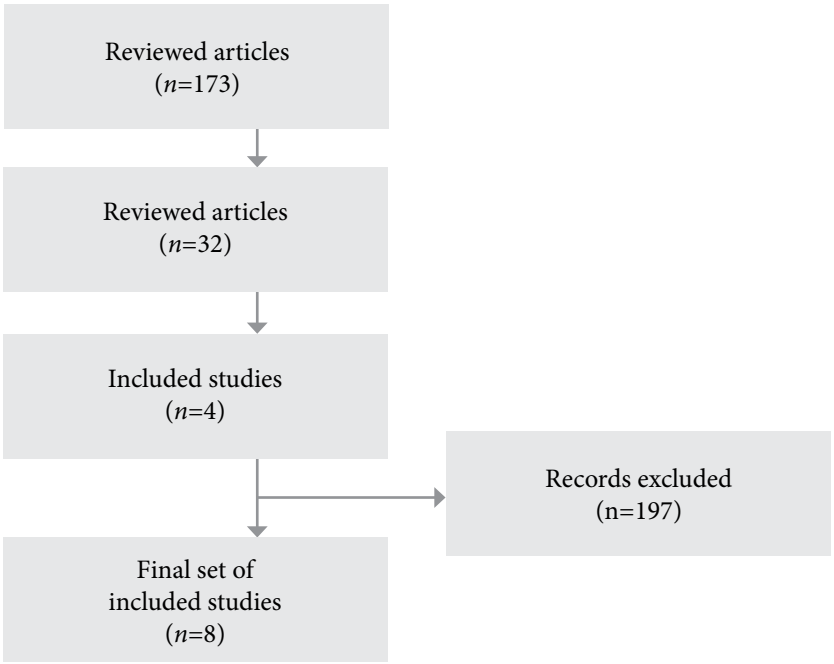
It is clear the Indigenous peoples in Canada, particularly youth, have been and continue to be exposed to various forms of violence and trauma, which in turn result in results in poor mental health. Therefore, it is important that researchers and clinicians are engaged in determining relevant interventions that demonstrate long-term improved mental health and resilience outcomes for victims of these traumas (e.g., sexual abuse survivors, mindfulness-based therapy; Earley et al., 2014). The focus of the current review is evidence-based applications for Indigenous youth experiencing traumatic events with the goal to: (1) determine interventions to support their mental health and resilience, and (2) consider to what extent Indigenous culture and traditional healing practices have been incorporated. A scoping review approach was chosen given the relative paucity of empirical evaluations within Indigenous communities that provided outcome information in both mental health and resilience-related factors. This approach is appropriate when the evidence base parameters are unknown and the state of evidence has moved beyond a narrative review, but has not yet reached the depth necessary for a systematic review (Levac, Colquhoun, & O'Brien, 2010).

Method

We proceeded through the four sequential steps of a scoping review recommended by Lande et al. (2011). Candidate studies were identified through a search of the PsycINFO

database using the search terms (intervention OR treatment OR program) AND (indigenous OR aboriginal OR first nation* OR native american OR american indian) AND (youth OR adolescen*) in the title of the articles. This search resulted in 173 articles, four of which were retained following review of abstracts. Results were limited to peer-reviewed, scholarly sources. Reference sections of identified treatment and review articles were also manually searched. As a result of this process, as well as the authors' involvement in the literature, an additional four articles were included in this review, for a total of eight studies (see figure 1).

Figure 1: Flow diagram for study selection



Studies were included if they reported evaluative (quantitative or qualitative) findings focused on the psychosocial treatment or targeted prevention of mental health disorders in Indigenous youth. Articles that were exclusively descriptive, including those detailing the development of culturally based interventions, were not included.

Results

See Table 1 (on following page).

Trauma

Trauma-focused cognitive behavior therapy (TF-CBT) is a well-established intervention for treating children who have been exposed to trauma (Cohen, et al., 2010; Silverman et al., 2008), including for culturally diverse youth in foster care (Weiner, Schneider, & Lyons, 2009).

Table 1: Results Table

Authors (year)	Name of Program	Sample Characteristics	Outcome Measure(s)	Findings
Morsette et al. (2009)	Cognitive Behavioral Intervention for Trauma in Schools (CBITS)	4 American Indian youth	Life Events Scale; Childhood PTSD Symptom Scale	PTSD & depressive symptoms were reduced for 75% of students
Morsette et al. (2012)	Cognitive Behavioral Intervention for Trauma in Schools (CBITS)	43 American Indian youth	Life Events Scale; Childhood PTSD Symptom Scale; Children's Depression Inventory	67% showed decrease in PTSD symptoms 38% showed decrease in depressive symptoms
Goodkind et al. (2010)	Cognitive Behavioral Intervention for Trauma in Schools (CBITS)	24 American Indian youth	Recent Exposure to Violence Scale; Childhood PTSD Symptom Scale; Children's Depression Inventory; Children's Coping Strategies Checklist	Significant decrease in symptoms of PTSD and anxious symptoms Slight decrease in depressive symptoms Improved symptoms of depression were maintained at six month follow-up
Woods & Jose (2011)	The Kiwi ACE program	24 Maori and Pacific youth	Children's Depression Inventory	Significant decrease in depressive symptoms post-treatment and at one-year follow-up
LaFromboise & Howard-Pitney (1995)	The Zuni Life Skills Development curriculum	98 Zuni youth	Suicide Probability Scale; Beck Hopelessness Scale; Indian Adolescent Health Scale; life skills (suicide prevention skills, active listening, problem solving); Observed role-play	Participants did not gain skills within the domains that the program targeted including self-esteem, recognizing and eliminating self-destructive behaviour, or identifying stress When assessed via a role-play, the intervention group was more skilled in suicide intervention and problem-solving
May et al. (2005)	Adolescent Suicide Prevention Project	American Indian youth (Western Athabaskan tribal nation)	Suicide gestures, attempts, & completions	Decrease in suicidal gestures and attempts No change in deaths by suicide
Le & Gobert (2013)	Mindfulness-based suicide prevention program	8 American Indian youth	Patient Health Questionnaire (PHQ-9)	The program was perceived as helpful Decreased suicide ideation Some improvement in depressive symptoms
Dickerson et al. (2012)	Drum Assisted Recovery Therapy for Native Americans	6 American Indian youth with substance use disorders, 8 substance abuse treatment providers, and 4 community members	Focus group questions	The program was deemed to be helpful and culturally appropriate
Desmond (2011)	The Urban Trails Project	40 American Indian youth	Child Behaviour Checklist; Behavioral and Emotional Rating Scale	Significant decreases in both internalizing and externalizing problems The youth also reported significant gains in behavioural and emotional strengths

Cognitive behavior therapy in schools (CBITS; Jaycox, 2004) has been adapted from TF-CBT, and is one of the most widely-researched group interventions for youth who have experienced trauma. CBITS consists of up to ten weekly school-based sessions (4 group session; 3 individual; 2 parent sessions; one teacher session). This program was originally designed for traumatized immigrant youth in inner-city schools, and has been successfully used to treat youth from ethnic minorities including African American and Hispanic youth (Stein et al., 2003).

The impact of CBITS delivered by school counselors to American Indian youth with a high level of exposure to violence and living on-reservation in the United States has been studied in Montana (Morsette et al., 2009), Nebraska (Morsette, van den Pol, Schuldberg, Swaney & Stolle, 2012), and in rural New Mexico (Goodkind, LaNoue, & Milford, 2010). In an initial study with four students, 75% reported substantial decline in PTSD or depressive symptoms following completion (Morsette et al., 2009). In a subsequent study, 67% of the 43 students who completed the program demonstrated improvements in symptoms of PTSD and 38% showed improvements in symptoms of depression (Morsette et al., 2012). An intent-to-treat analysis indicated improvement in PTSD symptoms following and minimal change in symptoms of depression (Morsette et al., 2012). Goodkind et al. (2010) reported that within their sample of 24 American Indian youth, there was a significant decrease in symptoms of PTSD and anxious symptoms, and a slight decrease in depressive symptoms. While gains in terms of improved symptoms of depression were maintained at six month follow-up, gains in PTSD symptoms were not (Goodkind et al., 2010).

Suicidality

Woods and Jose (2011) examined the impact of a school based early intervention program for symptoms of depression in grade ten Maori and Pacific Islander adolescents. The intervention was the Kiwi Adolescent Coping with Emotions (Kiwi ACE) program, a cognitive behavioral and psycho-educational intervention. Treatment consisted of eight, 90-minute group sessions facilitated by school counselors. Although the study only reported results of Indigenous youth, the intervention was offered to students of all ethnicities, and was not culturally tailored for Indigenous youth. Participants were randomly allocated to intervention and usual care (i.e., sessions with a school counsellor) control groups, with data available for 12 participants in each group. Analysis revealed outcomes favoring youth participating in Kiwi ACE program over those receiving usual care, with greater symptom reduction post-intervention and at two and 12 month follow ups (Woods & Jose, 2011).

The Zuni Life Skills Development Program (ZLS) is a school-based intervention program aimed at reducing suicide in Zuni pueblo youth (LaFromboise & Howard-Pitney, 1995; LaFromboise, 2008). The 98 Zuni youth who completed the program reported feeling less suicidal and less hopeless compared to the youth who did not receive the intervention; however there was no difference in depression scores between the two groups (LaFromboise & Howard-Pitney, 1995). The youth who completed the program also did not report any gains in the skills the program targeted including self-esteem, recognizing and eliminating self-destructive behaviour, or identifying stress, however when assessed via a role-play, raters significantly evaluated the intervention group as more skilled in suicide intervention and problem-solving (LaFromboise & Howard-Pitney, 1995).

One study was completed using the Adolescent Suicide Prevention Project, which is a public health initiative designed to support American Indian youth in Western Athabaskan tribal nation in rural United States (May, Serna, Hurt, & DeBruyn, 2005). A quasi-experimental evaluation found that the implementation of this public health approach (including universal, selective, and indicated interventions) was associated with substantial reductions in suicidal gestures and attempts (although not deaths) in youth (May et al., 2005).

An innovative pilot feasibility study examined the acceptability of implementing a mindfulness-based suicide prevention program with American Indian youth (Le & Gobert, 2013). Eight youth attending a Native American school in rural Montana participated in the program as part of a more comprehensive, community-wide suicide prevention initiative. The program was a universal intervention, delivered as a class curriculum, for 55 minutes, four days a week for nine weeks within a reservation–based school. Mixed method analysis indicated that program content was perceived as helpful and culturally acceptable by participants. Participants also reported improvements in mindfulness practice, decreased suicidal ideation, and slight improvement in symptoms of depression.

Evidence-Based Traditional Activities

American Indian youth participants in one study perceived that participating in American Indian/Native American traditional activities (through The Urban Trails project) was helpful in connecting them with the larger American Indian community (Dickerson & Johnson, 2011). The Urban Trails project was a children's mental health program for American Indians, and made use of a culturally informed holistic system of care for intervention. Forty youth participated in the entire study (including follow-up every six months for three years) and showed significant decreases in both internalizing (depressive, anxious, and somatic symptoms) and externalizing (rule breaking and aggressive behaviour) problems (Desmond, 2011). The youth also reported significant gains in terms of behavioural and emotional strengths (Desmond, 2011).

Dickerson et al. (2012) conducted a qualitative study examining the perceived acceptability and helpfulness of Drum Assisted Recovery Therapy for Native Americans (DARTNA) when used with urban American Indian and Native American youth with problematic substance abuse. The DARTNA program involved using drumming as part of a culturally adapted 12-step program, talking circles, and medicine wheel teachings (White Bison, 2007 in Dickerson et al., 2012). Accommodations were made to address the fact that drumming is traditionally a male-only activity. The professionals, youth, and community advisory board members perceived DARTNA to be helpful and culturally appropriate (Dickerson et al., 2012). Specific benefits included: healing, development of positive cultural identity, and creating a connection to culture (Dickerson et al., 2012).

Discussion

Widespread family and community disruptions place Indigenous youth at increased risk of exposure to traumatic events, including abuse and family violence, however it does appear that there are interventions that may serve to improve mental health outcomes and resilience following exposure.

Trauma

Culturally adapted CBITS programs were associated with improvement in mental health symptoms (Goodkind et al., 2010; Morsette et al., 2009; Morsette et al., 2012). Within the three implementations of this program, the core content of CBITS was maintained alongside the cultural adaptations including using culturally relevant examples, adding native linguistic concepts, embedding local history within the intervention (Morsette et al., 2009), utilizing stories and examples based on cultural teachings, as well as inviting Native elders to speak about Native perspectives of trauma, conduct healing ceremonies during sessions, and conduct ceremonies at the group graduation (Morsette et al., 2012), as well as considering the appropriateness of speaking about someone who had died (Goodkind et al., 2010). The majority of students who commenced treatment finished (Goodkind et al., 2010; Morsette et al., 2012), and counselors reported that they perceived CBITS was an acceptable match to their community (Morsette et al., 2012). Youth participants also indicated that the intervention was beneficial and enjoyable (Goodkind et al., 2010).

Goodkind et al. (2010) found that symptoms of PTSD improved during the course of treatment, but that these gains were not maintained at 6 months post-treatment. They speculated that this may have been due to experiencing trauma near the end of treatment or may reflect the chronicity and complexity of the trauma experience in Indigenous youth. Authors noted, however, that the logistics of gaining approval for the study from tribal councils, and the process of obtaining consent from participants and their parents was onerous. There was concern over the proportion of youth who displayed symptoms of PTSD, but did not participate in the study. For instance, 10% of youth eligible for the intervention did not participate because they did not feel comfortable with the group format. Further, many youth who reported high levels of exposure to traumatic events at initial screening were ultimately not eligible for treatment. Participants who had only experienced sexual abuse, or whose PTSD symptoms were due to grief or loss as opposed to exposure to violence were excluded. This criteria may have unfortunately excluded the majority of children, as rates of poly-victimization in youth are quite high (56.8%); it is likely that if a youth was exposed to violence, they have suffered another form of victimization (Hamby, Finkelhor, Turner, & Ormond, 2010).

Authors concluded that while they had made superficial adaptations to CBITS, given difficulties with recruitment and retention, deeper structural adaptations may be warranted (Rescinow, Soler, Braithwaite, Ahluwalia, & Butler, 2010). This also highlights the requirement that program developers consider the ethical implications of youth research participants who do not consent to become study participants and ensure they have the proper clinical protocols and individual intervention efforts available for these youth. Given that TF-CBT is considered a gold standard intervention, further research into assessing its acceptability and feasibility with Indigenous youth is warranted.

Overall, results of empirical evaluations of treatments to address trauma in Indigenous youth are promising. However, there are no studies conducted within community agencies. This is relevant since not all youth are comfortable in group settings, and with the relative lack of privacy offered within school settings. Further, there is a lack of guidance regarding

treatment planning for youth presenting with comorbid conditions or complex trauma (as defined as recurrent and cumulative exposure to trauma, which results in a widespread difficulties in a variety of functions including attachment, emotion regulation, and self-perception; Courtois, 2004). Difficulty in recruitment and retention suggests a need to generate strategies to improve youth engagement. Overall, results of the treatment of trauma in Indigenous youth support the use of manualized CBT based interventions with cultural adaptations.

Suicidality

Indigenous youth have one of the most elevated risks for suicide in the world (Kirmayer, 1994). There have been numbers of proposed prevention programs to address this extremely serious and pervasive issue. Recently a "review of reviews" of suicide prevention interventions for Indigenous youth was conducted (Bennett et al., 2015). Twenty-eight reviews of suicide prevention programs were included and a number of recommendations were generated included the consideration of suicide awareness curriculum in conjunction with screening, skills and 'gatekeeper' training, including peer support. There were no specific recommendations regarding Indigenous peoples or youth. However, Bennett et al. (2015) discussed the importance of Indigenous and non-Indigenous service providers to review the general recommendations in order to determine applicability. The lack of robust evidence to support particular prevention efforts for Indigenous youth makes on-going rigorous evaluation of local prevention efforts particularly important (Bennett et al., 2015).

Kirmayer, Fraser, Fauras and Whitley (2009) conducted one the most comprehensive reviews of suicide prevention programs for Indigenous communities thus far. They identified 30 suicide prevention programs for use with Indigenous populations and, although relatively few had been evaluated, 11 of them were described as "promising" (Kirmayer et al., 2009). Key elements, informed by research, emphasized the importance of moving beyond individual-level interventions to include systems-level initiatives. Kirmayer et al. (2009) noted that the most important characteristics of programs seemed to be community initiative and investment in the process, rather than the content of the intervention per se. Given the work to date, it seems critical that such promising approaches continue within a program of research to establish best-fit practices for Indigenous communities.

Holistic approaches to suicide prevention also include opportunities to participate in family and community activities, centered on sharing cultural knowledge and values. This approach implicitly acknowledges that suicidality can reflect socially-mediated (rather than psychologically) distress, including cultural and community disruption (Wexler & Gone, 2012). Interest in traditional healing and cultural activities as part of suicide prevention efforts are consistent with findings that lower rates of suicide within Indigenous communities are associated with enhanced cultural continuity (Chandler & Lalonde, 2008).

In this paper, four culturally adapted programs aimed at reducing Indigenous youth suicide were reviewed. Results from all four indicated improved mental health symptoms and/or reduction in suicidal ideation or gestures following completion (LaFromboise & Howard-Pitney, 1995; Le & Gobert, 2013; May et al., 2005; Woods & Jose, 2011). Participants

across all four programs also deemed the cultural adaptations to be acceptable. Most of these cultural adaptations referred to additions of ceremony or counseling from Elders to the intervention protocol, however one study examined the acceptability of mindfulness with American Indian youth (Le & Gobert, 2013). Within this mindfulness program ceremonies such as smudging and prayer were also incorporated and adaptations deemed appropriate (Le & Gobert, 2013). The study by May et al. (2005) was also unique in that the researchers examined trends in data over the eight years that had elapsed since the implementation of a program for American Indian youth. This population-based research is important for demonstrating long-term, sustainable effects of suicide prevention programs for Indigenous youth.

Overall, it appears the seriousness and pervasiveness of the issue of youth suicidality has driven implementation of prevention measures ahead of evaluation of the effectiveness of these prevention efforts. Comprehensive programs include awareness; screening; gatekeeping (peers and primary care providers); and treatment of psychiatric disorders. There is some limited evidence for incorporation of cultural-specific content within interventions. However, there is a pressing need for on-going evaluation of any suicide prevention efforts.

Evidence-Based Traditional Activities

A growing number of services and programs are incorporating traditional healing practices into treatments to address the mental health needs of Indigenous adults and youth. This is done in a variety of ways (Oulanova & Moodley, 2010; Trimble, 2010); some agencies use a holistic model of service, whereby a number of intervention components, including Western and traditional, are made available under the auspices of a single organization (Nebelkopf & Wright, 2011). Alternatively, there can be active collaboration between Western therapists and traditional healers, even if this does not occur within the same agency (e.g. Puchala, Paul, Kennedy & Mehl-Madrona, 2010). Western therapy can be adapted and augmented to incorporate traditional elements (e.g., culturally-based stories or symbols) to illustrate concepts within therapies (BigFoot & Schmidt, 2009; Kumpfer et al., 2002; Saylors & Daliparthy, 2004). Other services focus on participation in traditional healing and culturally-based activities (such as land-based or drumming) (Dickerson, Robichaud, Teruya, Nagaran, & Hser, 2012). Lastly, integrative therapies have been developed, whereby a hybrid model of therapy is generated by integrating Indigenous spirituality with Western-based therapies (e.g. Duran, 2006 in Gone, 2010).

Oulanova and Moodley (2010) conducted a qualitative study with Canadian practitioners (7 Indigenous; 2 European origins) to examine the way in which they integrated traditional healing and Western interventions, when delivering mental health services to Indigenous adults in Canada. Therapists reported that they generally used their own judgment to decide when (and whether) to integrate traditional healing methods into counseling. Interestingly, they also mentioned the helpfulness of traditional healing in the counselors' self-care. Other researchers have noted that the involvement of traditional healing might be perceived as appropriate for some concerns (e.g., emotional distress) but not others (e.g., infectious diseases) (Wyrostok & Paulson, 2000).

Evaluation of the impact of traditional healing on mental health is limited – possibly because such studies may be particularly ethically and logistically challenging (Puchala et al., 2010). Nonetheless, research generally suggests that use of culturally specific-programs or culturally-adapted elements appears to encourage engagement and retention, although not necessarily improved outcomes. For instance, a review of counseling literature by Trimble (2010) suggested that incorporation of cultural elements to interventions improves development of rapport, trust and empathy. Specific cultural activities that have been used in therapeutic contexts include talking and sharing circles, smudging, prayer, pow wows, sweatlodges, drumming, bead and jewelry making, and land-based activities, such as hunting and tundra walks (Mills, 2003; Nebelkopf & Wright, 2011; Portman & Garrett, 2006). One pragmatic challenge to incorporating cultural elements in treatments for Indigenous youth is the diversity of communities and, hence, traditions and ceremonies from which they might be drawn. The use of healers who can minister across tribes, and selection of and practices common to many Indigenous communities are some ways to attempt to pragmatically address this challenge (Dickerson et al., 2012; Hartmann & Gone, 2012).

Several studies also exist that evaluate the helpfulness of traditionally-based interventions with adult participants. A clinical case series conducted in Aboriginal communities in Saskatchewan, Canada examined the impact of augmenting psychiatric care with routine involvement of elders and traditional healers when addressing domestic violence (Puchala et al., 2010). The work of psychiatric and community healers was conducted jointly in some instances (e.g., family sessions) and separately in others (e.g., praying or ceremonies) While specific content of traditional spirituality was individualized for each participant, commonalities across cases included adopting a non-judgmental, non-blaming approach to perpetrators of domestic violence and involving families of both the perpetrator and the subject of violence in discussions. Therapy involved changing the narrative and co-constructing a 'redemptive script' about the violence. This redemptive script sometimes included an appeal to values and roles illustrated within traditional stories (e.g., core Aboriginal values such as respect for women; use of 'talking circles', rather than violence, to solve problems). Sixty-two percent of the adults in the study showed a "dramatic" improvement in rates of domestic violence, including 29 who had virtually ceased altogether (Puchala et al., 2010).

Schif and Moore (2006) conducted a quasi-experimental study of the immediate impact of sweat lodges on adult participants (59% of whom were Indigenous). Consistent with previous research (Ross & Ross, 1992; Colmant & Merta, 1999), short-term improvements in spiritual and emotional wellbeing were reported, although there were no follow up ratings. A retrospective study also examined the accounts of Indigenous adults speaking about their healing journeys (McCormick, 1995). More than 50% mentioned establishing a connection with nature as pivotal in their personal journey (McCormick, 1995).

Three articles were included in this review that specifically utilize traditional healing to address mental health issues and improve resilience in youth. When Indigenous youth participated in traditional activities, they reported experiencing a greater connection to the larger Indigenous community (Dickerson & Johnson, 2011; Dickerson et al., 2012). Further, it

does seem that connecting to culture and engaging in traditional activities can have a positive impact on mental health outcomes and resilience (ADULT refs). While only one study evaluated the affect that traditional activities has on youth mental health, significant gains were made in internalizing and externalizing problems, as well as behavioural and emotional strengths (which can be viewed as resilience factors; Desmond, 2011).

Despite these positive preliminary results, caution needs to be exercised when considering incorporation of traditional healing in mental health interventions. Researchers have warned against non-Indigenous practitioners making use of traditional cultural practices and some describe this as a form of cultural appropriation (Gone, 2010; LaDue, 1994; Oulanova & Moodley, 2010). Details regarding the specific nature of particular traditional healing practices might not be documented in writing, to avoid appropriation (Gone, 2010) or because, in some cultures, it is only appropriate for certain subgroups to have or make use of knowledge of particular cultural practices (Brady, 1995). Hartmann and Gone (2012) note that traditional healing activities should be carefully chosen, particularly with Indigenous youth without extensive previous exposure to traditional activities. There is also concern that traditional healers be vetted in some way to ensure the authenticity of their knowledge, and avoid exploitation of Indigenous communities. It is also important to consider that an introduction to cultural activities per se is not necessarily healing. Success in addressing addictions and other mental health problems success may be limited by the extent that peer groups support changes in the youth's behavior (Brady, 1995). Lastly, Oulanova and Moodley (2010) mentioned some practitioners were concerned about the potential responses of their regulatory colleges to use of traditional methods within therapy.

Future Directions

Several interventions have been developed to address the common problems with which youth typically present, however many of the interventions have often not been extensively evaluated, and this remains a priority for future work. Many of the studies included in this scoping review suffered from small sample sizes (Desmond, 2011; Dickerson et al., 2012; Goodkind et al., 2010; LaFromboise & Howard-Pitney, 1995; Le & Gobert, 2013; Morsette et al., 2009; Morsette et al., 2012; Woods & Jose 2011), which limited the statistical analysis that could be completed and conclusions that could be drawn from the findings. Additionally, none of the studies utilized a randomized controlled trial design. Future research regarding interventions aimed at enhancing mental health outcomes and resilience in Indigenous youth should utilize more rigorous methods and statistical techniques to improve the quality of the evidence.

Surprisingly, there were no interventions directed at youth that utilized alternative or technology-based delivery methods and as nearly half (49.3%) of First Nations people in Canada live on-reserve, this format for intervention may be appropriate (Statistics Canada, 2011). Therefore, future research in this area should consider other formats for treatment delivery including bibliotherapy, computers (and DVDs), the internet, telephone and/or telehealth. A recent review of 11 self-directed interventions to prevent externalizing disorders in children found that self-directed interventions to reduce externalizing behaviors in youth

generated large effect sizes for parent-reported child externalizing behavior, when compared to wait-list control groups (Tarver, Daley, Lockwood, & Sayal, 2014). Unfortunately, there were no comparisons between the effectiveness of self-directed and in-person therapy for externalizing disorders in youth (Tarver et al., 2014). A recent review with adults with mental health difficulties revealed that cognitive behavior therapy (CBT) delivered in alternate formats could achieve comparable outcomes to those delivered face-to-face (Andrews, Cujipers, Craske, McEvoy, & Tiov, 2010). Of course, utilizing alternative delivery for treatments comes with additional challenges regarding literacy, computer or internet access, and confidentiality. Despite these caveats, it is possible and likely that use of books, DVDs, internet sites, telehealth. and other resources may be helpful adjuncts for a proportion of Indigenous rural and remote populations, and are consistent with a public health model for intervention where higher functioning individuals can be assisted with more minimal support (Currie, McGrath, & Day, 2010).

Conclusion

Indigenous youth are at increased risk of mental health challenges and it is imperative that this risk is addressed in an evidence-based way. Unfortunately, the quantity and quality of evidence available to bolster mental health and resilience in youth, particularly those exposed to violence or trauma, is low. Many studies had small samples sizes and none employed more rigorous statistical techniques. Therefore, the conclusions that can be drawn from results are limited. Despite these drawbacks, many studies reported positive feedback from youth and relevant adults regarding the cultural adaptations made to enhance suitability of the programming. The depth of these adaptations ranged from minimal to quite deep; this range included encouraging Elders to attend intervention sessions (Morsette et al., 2009; Morsette et al., 2012), incorporation of traditional healing ceremonies (Goodkind et al., 2010) or cultural norms (LaFromboise & Howard-Pitney, 1995; LaFromboise, 2008), involvement of tribal leadership (May et al., 2005), and the utilization of cultural stories (Le & Gobert, 2013).

In sum, there is evidence that adapted interventions with widely established empirical bases in other cultures are helpful when used with Indigenous youth and their families, particularly for youth who have experienced trauma. This review draws upon the small, but growing body of literature documenting the benefits of adaptive interventions to suit the needs of Indigenous youth.

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