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Abstract

nato' we ho win is a trauma-and-violence-informed artistic and cultural intervention for Indigenous women who have experienced intimate partner violence. The results of this study provide evidence that engagement in *nato' we ho win* had a positive impact on participants' well-being. Participants completed self-report questionnaires at intake, post-intervention, and at one-year follow-up. Multilevel modeling analyses assessed for within-participant changes over time. There was a statistically significant increase in participants' self-reported sense of resilience ($p < .001$) and personal agency, connectedness, and post-traumatic growth ($ps < .05$). There were statistically significant decreases in participants' self-reported anxiety and depression ($ps < .01$) from intake to one-year follow-up.

Author Note

Our sincere thanks go out to the women who participated in *nato' we ho win* for agreeing to participate in this research study. Your willingness to share helps to inform future research and interventions for survivors.

nato' we ho win was designed by Barbara Frazer, with the guidance of Norma Rabbitskin and Willie Ermine. *nato' we ho win* would not have been possible without facilitators (Amanda Scandrett, Barbara Frazer, Carmen Peekeekoot, and Norma Rabbitskin), domestic violence advocates (Lori Deets, Samantha Racette, and Theresa Lanigan), and Elders and Elders' helpers (Beverly Willer, Isabelle Kenowekesequape, Karen Parenteau, Margaret Masney, and Maryanne Machiskinic). In addition, we are grateful to Jo-Anne Dusel, who provided guidance throughout the project. Thank you to Bonita Khan, Kerri Hill, and Marissa Landry, who assisted with data collection. Our thanks also go out to the many childminders who assisted throughout *nato' we ho win*; those who prepared food for the group; and to King George Public School (Prince Albert), Moose Jaw Museum and Art Gallery, Family Service Moose Jaw, and the *nanatawihowikamik* Healing Lodge and Wellness Clinic at the University of Regina for providing space for *nato' we ho win*.

Assessing the Efficacy of a Cultural and Artistic Intervention for Indigenous Women Who Have Experienced Intimate Partner Violence

Introduction

Saskatchewan has the highest rate of police-reported intimate partner violence (IPV) among the Canadian provinces, with 655 victims per 100,000 population, which is over double the national rate of 322 per 100,000 (Burczycka, 2019). While 16% of women in the province are Indigenous (Arriagada, 2016), 75% of women who accessed Saskatchewan's provincially-funded domestic violence shelters (in 2019- 2020) identified as Indigenous (Saskatchewan Ministry of Justice, personal communication, 2021). Indigenous women are more likely to experience IPV than non-Indigenous women and tend to experience more severe forms of IPV (Allen, 2020; Boyce, 2016; Statistics Canada, 2016), which have been directly linked to the impact of colonization (Brownridge et al., 2017; Native Women's Association of Canada, 2020). Devaluing women, privileging heteropatriarchal values, eradicating diverse gender expressions, and normalizing violence are societal behaviours perpetuated by colonial narratives that have led to high rates of violence against Indigenous women and have interfered with Indigenous women seeking resources to escape IPV. Indigenous women who seek support at domestic violence shelters and services have often experienced multiple potentially psychologically traumatic events (Statistics Canada, 2016; Wathen, 2012), with some Indigenous women's experience exacerbated by forced assimilation and residential schools (Brownridge et al., 2017; Holmes & Hunt, 2017). The intergenerational impact of residential schools has resulted in disruptions not only to the lives of those who attended but to the lives of their families, communities, and descendants, as well (Brownridge et al., 2017; Holmes & Hunt, 2017; Native Women's Association of Canada, 2020).

Research indicates that IPV has severe physical and mental health consequences for women victims/survivors, including post-traumatic stress disorder (PTSD), depression, and anxiety (Campbell, 2002; Chmielowska & Fuhr, 2017; Devries et al., 2013; Lagdon et al., 2014; Stockman et al., 2015). However, there is also evidence that women who have experienced IPV are resilient (Crann & Barata, 2016; Humphreys, 2003) and can experience post-traumatic growth (Rahayu & Hendriani,, 2019; Yeagle, 2015).

nato' we ho win (which can be translated as "the art of self-healing," in the Cree language) is an innovative intervention developed in Saskatchewan for Indigenous women who have experienced IPV, with the goal of improving health outcomes by increasing cultural connections and teaching practices that foster resilience. Participants engaged in trauma-and-violence-informed artistic and cultural programming designed to help build resilience, stress management skills, coping skills, social support networks; increase knowledge of traditional Indigenous culture; and address issues related to the experience of IPV. *nato' we ho win* aimed to assist Indigenous women survivors in healing from IPV, not by focusing on IPV directly, but by providing cultural teachings, arts-based and self-care activities, and peer support. *nato' we ho win* ran a total of nine times (three times in three Saskatchewan communities) between September 2017 and December 2018.

Theoretical Framework

Violence occurs in all cultures, religions, and communities; nevertheless, Indigenous women face higher rates of violence than non-Indigenous women due to Canada's colonial history (Allen, 2020; Boyce, 2016; Brownridge et al., 2017; Statistics Canada, 2016). Colonial narratives have devalued women due to their race and gender, resulting in a disproportionate number of incidents of IPV, spousal assault, family violence, and sexual assault against

Indigenous women, children, and gender-diverse people (Native Women's Association of Canada, 2020). In addition, many residential school students were subjected to long-term abuse and witnessed others being abused. The inability to leave exacerbated the impacts of abuse, leading to complex post-traumatic stress disorder (a concept described by Herman,1992) and historical trauma, a type of PTSD caused by Indigenous peoples' experiences with colonization and residential schools (Archibald et al., 2012). Archibald and colleagues (2012) posited that healing from historical trauma is similar to recovering from PTSD, with the added complexity of addressing the loss of family, language, culture, traditional knowledge, spirituality, lands, and resources.

Research supports the theoretical effectiveness of artistic and cultural programs as interventions for people who have experienced violence and other potentially psychologically traumatic events (Archibald et al., 2012; Becker, 2015; Gone, 2013; Ikonomopoulos et al., 2017; Lester-Smith, 2013; Özkafacı & Eren, 2020; Pifalo, 2006; Recollet et al., 2009). Creative methods, including art therapy, have been used with various survivor populations, including victims of sexual violence (Becker, 2015; Pifalo, 2006), victims of IPV (Ikonomopoulos et al., 2017; Özkafacı & Eren, 2020), and Indigenous survivors of intergenerational trauma (Archibald et al., 2012; Recollet et al., 2009).

A study by Ikonomopoulos and colleagues (2017) of three survivors of IPV who participated in individual creative journal arts therapy sessions, which included various artistic activities with a therapeutic focus, demonstrated some positive results, including increased resiliency. A recent study by Özkafacı and Eren (2020) found that women who had experienced IPV and were living with PTSD experienced significant improvements in levels of depression, anxiety, and hopelessness after participating in a 14-session art intervention.

Researchers have indicated the need for interventions that are trauma-and-violence-informed, culturally-informed, and strengths-based (Brownridge et al., 2017; Varcoe et al., 2019). There is evidence that culturally-based programming can increase positive outcomes for Indigenous people who have experienced violence and trauma (Archibald et al., 2012; Gone, 2013; Lester-Smith, 2013; Recollet et al., 2009). Group programs grounded in traditional knowledge and incorporate values such as sharing food and stories appear preferable for Indigenous survivors of IPV (Jackson et al., 2015). Recollet and colleagues (2009) evaluated an eight-week holistic arts-based group for Indigenous women. The group included cultural teachings, self-care techniques, and activities designed to build group cohesion. The authors note the importance of Indigenous perspectives relating to "kindness, respect, mutual sharing, spirituality and . . . connections with culture" (p. 178) and provide evidence for the appropriateness of arts-based interventions for Indigenous survivors. Jackson and colleagues (2015) wrote how storytelling, shawl making, and opportunities to connect with traditional knowledge were incorporated for Indigenous women staying in two domestic violence shelters in Alberta. Jackson and colleagues explained that the traditional arts-based work was not intended as a therapeutic intervention, but "this shared creative endeavor generated a spirit of hope amongst the women participants, their families and communities" (p. 23).

Graham (2013) details the theoretical framework for using expressive therapies for Indigenous people who have experienced trauma, who may be less likely to seek counseling from non-Indigenous counseling and support services. Citing Herman (1992), Graham explains that individuals may find it difficult to share details regarding traumatic experiences in talking-based therapy. Expressive therapy can encourage personal growth, help participants to find relief from traumatic symptoms, and increase their sense of well-being (Graham, 2013; Malchiodi,

2007, cited in Graham, 2013; Malchiodi, 2005). In addition, Graham states that expressive therapies fit within an Indigenous worldview by going beyond addressing cognitions and behaviors and connecting with four areas of health and well-being in the medicine wheel.

Individuals can integrate the concept of *miýo-pimātisiwin*[i] (leading a good life) into their lives through ceremony and daily living processes, including Indigenous beliefs, teachings, and worldviews. In the context of *miýo-pimātisiwin*, engaging in a healthy life includes learning, growing, and healing. An Indigenous worldview offers that Creator provides us with the ability to discover our true selves, identify and use our gifts, and contribute to the community's collective well-being (J. Sasakamoose, personal communication, 2021). Traditional teachings offer direction and guidance for understanding the life cycle, achieving well-being, and acknowledging and holding oneself and others accountable. Individuals are responsible for their families, community, society, and future generations (Shawanda & Sasakamoose, 2019).

Teachings based on the Sacred Circle assist people in their search for balance and harmony within themselves and their relationships with family and community, as well as the natural and spirit worlds (Regnier, 1994). Each of the four directions (east, south, west, and north) offers a unique perspective on self-reflection and growth. People can understand where an imbalance may exist in their lives by applying the wisdom of these teachings. These teachings are intended to assist individuals in meeting their community responsibilities and supporting their overall well-being. Indigenous healing emphasizes spirituality and ceremony to restore a meaningful relationship between the participant and the spirit world. Humans learn about their spiritual gifts and their responsibilities to others through ceremony. Humans maintain a healthy relationship with the forces of nature and are grateful for the Creator's gifts (Makokis et al., 2020).

Indigenous ways of healing use cultural catalyst methods that are connected to the land, hold local teachings, and create opportunities for connection and support (LaVallie, 2019). Therefore, *nato' we ho win* aimed to incorporate artistic and cultural programming along with self-care activities to create a space for Indigenous women who experienced IPV to heal *together*. We hypothesized that *nato' we ho win* would support positive outcomes for Indigenous women who had experienced IPV.

Method

We conducted a longitudinal research study using quantitative and qualitative methods to evaluate the outcomes experienced by Indigenous women in Saskatchewan who participated in *nato' we ho win*. This article presents the quantitative results of the study, which measured participants' self-reported quality of life, personal agency, interpersonal agency, resilience, connectedness, post-traumatic growth, depression, and anxiety before and after participating, and again at a one-year follow-up.

Participants

Research participants included 101 Indigenous women in Saskatchewan (M_{age}= 35.63 [*SD*= 11.17]) who participated in *nato' we ho win*. Participants who self-identified as Indigenous survivors of IPV were eligible to participate in the group. Participants signed up to participate on a first-come, first-served basis. When groups were full, women who expressed a desire to participate were added to the list for the next session. Women were not required to be out of relationships where they were experiencing IPV to participate. Most participants (*n*=100) self-identified as women, and one self-identified as two-spirited. We honored inclusion irrespective of sexual orientation and therefore did not ask about sexual orientation. Most participants (87%) self-identified as First Nations, others identified as Métis (13%). Measures at intake and post-

intervention were completed by 56% of participants, and 42% provided data at all three data collection points (i.e., intake, post-intervention, one-year follow-up). *nato' we ho win* was delivered in English in all three communities. Some participants indicated knowledge of their Indigenous language, but many did not speak their language.

Participants were asked about their connection to forced assimilation. Many participants (19%) reported having attended residential school and having at least one parent (59%) or grandparent (53%) who attended residential school. In addition, several participants reported not knowing if their grandparents (33%) or their parents (14%) had attended residential school.

Procedure

The study was approved by the University of Regina Research Ethics Board (2017-093). Guidelines established by the *Tri-Council Policy Statement: Ethical Conduct for Research Involving First Nations, Inuit, and Métis Peoples of Canada* were followed (CIHR, NSERC, & SSHRC, 2018). The *Tri-Council Policy Statement* emphasizes the importance of community engagement, mutual benefits in research, collaborative research, and research agreements. *nato' we ho win* took place in three cities in Saskatchewan; participants were connected to Indigenous communities throughout the province. The current research involved survivors of violence who belonged to many different Indigenous communities; as such, we considered the individual women to be the owners of their data (as opposed to a community owning the data). Time was spent with Indigenous Knowledge Keepers in creating and observing respectful protocols in developing the intervention and ensuring the women participants had volition and self-determination throughout the study. Through the mixed methods intervention research process, the *nato' we ho win* team attempted to honor Indigenous ways of being and doing.

The recruitment poster was posted on the Provincial Association of Transition Houses and Services of Saskatchewan's (PATHS) website and social media. Domestic violence shelters and counseling agencies in the three communities assisted in recruitment by displaying the poster in their agencies and communicating the opportunity to their clients. Involvement with a domestic violence shelter or service was not a requirement to participate, and some women self-referred. In the second and third groups, some women were recruited via word of mouth from past participants.

Participants received a research incentive of $100 for participating in each of the data collection sessions. Women who declined to participate in the research would not have been excluded from participating in *nato' we ho win*, however no group participants declined research participation. Participants completed quantitative self-report measures prior to beginning *nato' we ho win* (Time 1). Post-intervention, participants attended a focus group and completed quantitative self-report measures (Time 2). Participants attended another research session one year later (Time 3; i.e., the one-year follow-up), where they participated in another focus group and completed the same measures that were administered post-intervention. Domestic violence advocates working with the research team were present to answer questions and assist participants in completing the measures.

Participants provided their informed consent prior to participating in the research, and consent was ongoing throughout *nato' we ho win* and subsequent data collection points. A consent form was signed at intake, and verbal consent was given before collecting data at Times 2 and 3. Participants were reminded at each stage that all questions were optional and that they were able to stop at any time.

Intervention

nato' we ho win was designed to improve health outcomes for Indigenous women who have experienced IPV by increasing cultural connections and teaching practices that foster resilience. The existing literature suggested that interventions like *nato' we ho win* may be effective for Indigenous women survivors; however, there were no published studies of such an intervention. *nato' we ho win* was designed by an Indigenous Knowledge Educator. Teachings to inform *nato' we ho win* were given to the Indigenous Knowledge Educator by two traditional Knowledge Keepers. *nato' we ho win* was designed to be easily implemented in other communities and contexts. Themes in the program manual[ii] can be covered each week, while allowing flexibility for the facilitator to bolster the content with their own teachings and skills. The intervention can be adapted to be facilitated by an artist or an Indigenous Knowledge Keeper or Elder. In the current study, groups in the three communities were led by an Indigenous Knowledge Educator, Indigenous Knowledge Keepers, and an art therapist.

There were three team members present at every group session: the facilitator, an Elder, and a domestic violence advocate. Facilitators delivered *nato' we ho win* by working through the themes in the 13-week program manual. Domestic violence advocates managed logistical and organizational pieces for the group (e.g., conducting participant intakes, communicating with women between weekly sessions, arranging transportation for participants), assisted participants with safety planning, provided referrals for support as needed, and assisted with data collection. The Elder began the group session with prayer and offered cultural teachings, support, and guidance. Facilitators and Elders were recruited through their relationships with the Indigenous Knowledge Educator, who designed the intervention, or the research and project team members.

Domestic violence advocates were recruited for their expertise working with survivors of IPV, and were current or former employees of local domestic violence shelters.

Knowledge Keepers are Elders or are taught by Elders and are respected holders and teachers of traditional Indigenous knowledge. Indigenous Knowledge Keepers are esteemed for their role in the community and their willingness to ensure cultural and land information is not lost. Knowledge Keepers informed the intervention and the research study. Researchers who conduct research with Indigenous peoples must approach, include, and honour Knowledge Keepers for the information that they offer to the research. A benefit of *nato' we ho win* is that local knowledge is incorporated; therefore, the intervention can be adapted for other communities or populations.

nato' we ho win consisted of a 3-hour evening group session once per week for 13 weeks. Each week began with a meal, then a check-in and smudge, followed by time for sharing in circle and work on arts-based projects while learning traditional teachings. Arts-based projects differed in the three communities, depending on the facilitator's background, training, and skills. Examples included therapeutic arts, such as mural painting and visual journaling, and Indigenous hand-building, including sewing, beading, and using traditional medicines to make tea and salve. Teachings in the 13-week program manual include a welcome feast and orientation, grounding in an Indigenous worldview, the inherent responsibility to be a carrier of knowledge, intergenerational trauma, grief and loss, setting intentions, mindfulness, grandmother moon teachings, women's health, being of service, family and home well-being, self-love, and a celebration and closing feast.[ii]

The intervention and research study were informed by principles of trauma-and-violence-informed practice (Nonomura et al., 2020; Ponic et al., 2016). Trauma-and-violence-informed

interventions and research consider not only the "lived experience of the individual client, but also the kinds of social circumstances in which their everyday lives take place—that is, the relationships, community environment, and social structures that shape the kinds of opportunities and challenges they face" (Nonomura et al., 2020, p. 3). The framework for design and delivery of the intervention and the research study followed the Substance Abuse and Mental Health Services Administration's (SAMHSA, 2014) six principles of a trauma-informed approach: safety; trustworthiness and transparency; peer support; collaboration and mutuality; empowerment, voice and choice; and awareness of cultural, historical, and gender issues. The intervention and the study were designed with participants' choice in mind, and all aspects of the intervention and research were optional. Post-intervention research data were collected during week 12, which allowed the final wrap-up session and feast to take place during the last week (week 13). Transportation to and from the group was provided, as was on-site childcare and a meal to start each group session.

The intervention was developed and piloted in Moose Jaw, Saskatchewan, and subsequently ran three times in three communities in Saskatchewan—Prince Albert, Regina, and Moose Jaw. These communities were different in terms of being larger and smaller urban centres, located in northern and southern areas of the province, and having different opportunities available relating to access to culture. *nato' we ho win* took place in accessible locations within the three communities—in Prince Albert, the program took place in a school; in Moose Jaw *nato' we ho win* took place in both a museum and gallery and programming space owned by a local non-profit; and in Regina, the intervention took place in *nanatawihowikamik* Healing Lodge and Wellness Clinic at the University of Regina. *nato' we ho win* ran a total of

nine times (three times in each of three communities) between September 2017 and December 2018.

Measures

The present study assessed the effectiveness of a new intervention and is one of few studies to measure outcomes for Indigenous victims/survivors of IPV who participated in a trauma-and-violence-informed artistic and cultural intervention. Specifically, the study was designed to measure whether participants' health and well-being improved after participating in *nato' we ho win*. There is not one holistic measure of health and well-being (Cooke et al., 2016); accordingly, the research team chose existing validated measures relating to different domains of well-being (e.g., quality of life, agency, resilience, connectedness, post-traumatic growth, depression, and anxiety) to evaluate women's overall well-being holistically, over the three time points.

Demographic Variables. The intake questionnaire asked participants to provide several pieces of demographic information. Participants were asked to identify their gender, age, cultural background (e.g., First Nations, status or non-status, Métis, Inuit, or other with a blank to self-identify), and cultural group (e.g., Saulteaux or Cree). Participants were also asked to describe their personal history with respect to their first language, language(s) spoken at home, if they had attended residential school themselves, and if family members (e.g., grandparents, parents, siblings) had attended residential school. Participants were also asked to describe their current health access and status, specifically, whether they had a primary care physician, chronic health conditions, or current difficulties with addictions/substance use.

Composite Abuse Scale Revised–Short Form (CAS_R-SF; Ford-Gilboe et al., 2016). The CAS_R-SF is a self-report measure designed to measure experiences of IPV. The CAS_R-SF

assesses if respondents have ever experienced IPV, as well as if they have experienced IPV in the last 12 months. The CAS_R-SF includes four initial questions to assess if the respondent has ever been in an adult intimate relationship, is currently in an adult intimate relationship, and has been afraid of a current or former partner, as well as 15 yes/no questions relating to various forms of IPV. Each of the 15 yes/no questions also asks, "if yes, how often did it happen in the past 12 months?" In addition, the CAS_R-SF includes subscales to measure experiences of physical (5 items), sexual (2 items), and psychological (8 items) abuse.

Post-traumatic Stress Disorder Checklist for DSM-5 (PCL-5; Weathers et al., 2013). The PCL-5 is a 20-item self-report measure that assesses the 20 DSM-5 symptoms of Post-traumatic Stress Disorder. The PCL-5 items were rated on a 5-point Likert scale assessing how much respondents were bothered by PTSD symptoms in the last month, ranging from "not at all" to "extremely."

Center for Epidemiologic Studies Depression Scale (CESD-14; Carleton et al., 2013; Radloff, 1977). The 14-item version of the CESD was used to assess depression within the past week. Self-report items were rated on a 4-point Likert scale ranging from "rarely or none of the time" (less than one day) to "most or all of the time" (5–7 days).

Generalized Anxiety Disorder (GAD-7; Spitzer et al., 2006). The GAD-7 is a 7-item self-report measure designed to assess generalized anxiety symptoms. Items were rated on a 4-point Likert scale ranging from "not at all" to 3 "nearly every day."

Quality of Life (QoL; Domestic Violence Evidence Project of the National Resource Center on Domestic Violence, n.d; Sullivan & Bybee, 1999). The current study used an adaptation of Andrews and Withey's (1976) measure from the Domestic Violence Evidence Project of the National Resource Center on Domestic Violence. The QoL is a 9-item self-report

measure that uses a 7-point Likert scale to rate aspects of quality of life from “terrible” (7) to “extremely happy” (1). In the current study, items were reverse-scored so that higher scores equal a higher QoL.

Personal Agency Scale (PAS; Smith et al., 2000). The PAS is an 8-item self-report scale that measures the frequency with which individuals use specific strategies pertaining to individual behaviors to affect positive outcomes in their lives. Scale items are measured using a 4-point Likert scale rating frequency, from “often” to “never.”

Interpersonal Agency Scale (IAS; Smith et al., 2000). The IAS is a 5-item self-report scale that measures the frequency of specific strategies in interactions with others to affect positive outcomes. Scale items are measured using a 4-point Likert scale rating frequency, from “often” to “never.”

Brief Resilience Scale (BRS; Smith et al., 2008). The BRS is a 6-item self-report questionnaire designed to assess the ability to adapt and recover from stressful experiences. Items are rated on a 5-point Likert scale ranging from “strongly disagree” to “strongly agree.” Three of the scale items are reverse scored items (e.g., “I have a hard time making it through stressful events”), and three are typically scored (e.g., “It does not take me long to recover from a stressful event”). Reverse scoring was used so that a higher score on the BRS indicated higher self-reported resilience.

Post-traumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996). The PTGI is a 21-item measure assessing five factors relating to post-traumatic growth (New Possibilities (NP), Relating to Others (RO), Personal Strength (PS), Appreciation of Life (AL), and Spiritual Change (SC). Whereas in the original version of the PTGI, participants are asked to rate experiences on a 6-item Likert scale, ranging from “I did not experience this change as a result of

my crisis" to "I experienced this change to a very great degree as a result of my crisis," in the current study "crisis" was replaced with "abuse."

Awareness of Connectedness Scale (ACS; Mohatt et al., 2011). The ACS is a 12-item self-report questionnaire assessing awareness of connection, including connection to the land, nature, and community. Items are rated on a 5-point Likert-type scale ranging from "not at all" to "a lot."

nato' we ho win was connected with 16 other projects supported by the Public Health Agency of Canada (PHAC) funding stream, *Supporting the Health of Survivors of Family Violence*, through the Knowledge Hub[iii]. In the early stages of this project, researchers working on these different intervention research projects with diverse victim/survivor populations discussed validated measures for trauma-and-violence-informed research with survivors. These discussions informed the selection of measures used in the present study, which were finalized in consultation with the Indigenous Knowledge Keepers.

We assessed challenges (deficits) in some areas of functioning with the intention of measuring improvements (and therein strengths) and also included several strengths-based measures. As a result, there were two measures of challenges (the CAS_R-SF and the PCL-5) collected once at intake, two measures of challenges (CESD-14 and GAD-7) collected at all three time points, and six measures of strengths (QoL, PAS, IAS, BRS, PTGI, ACS) collected all three time points.

Several measures in the present study had been used in other studies with victims/ survivors of IPV and were selected to support integrating the results from *nato' we ho win* with results from other research. In particular, QoL, PAS, and IAS were used with Indigenous women in a Canadian study by Varcoe and colleagues (2019). Varcoe and colleagues (2019) also used

the PTSD checklist, Civilian Version (PCL-C; 17 items), and the Center for Epidemiologic Studies Depression Scale, Revised (CESD-R; 20 items). The present study used shorter versions of these two measures (PCL-5 and CESD-14) to reduce the overall number of items in the self-report questionnaire. A recent study examining a creative arts therapy treatment program for survivors of IPV used the BRS (Ikonomopoulos et al., 2017), and the PTGI has also been used with survivors of IPV (Yeagle, 2015).

Results

Descriptive Statistics

Following completion of one-year follow-up data collection, descriptive statistics were run for data on all measures at all three collection points to check the integrity of the data. Descriptive statistics for measures collected at the three time points (i.e., intake, post-intervention, one-year) are presented in Table 1.

Table 1. Participant Demographics and Mean Scores

	T1			T2			T3		
	n	*M (SD)*	α/*S*/*K*	*n*	*M (SD)*	α/*S*/*K*	*n*	*M (SD)*	α/*S*/*K*
CESD-14	99	18.09 (7.02)	.79/-.07/-.63	57	15.76 (7.33)	.81/.67/.26	40	14.85 (8.52)	.85/1.07/1.18
GAD-7	101	20.54 (6.59)	.90/.26/-.72	55	17.16 (5.86)	.89/.36/-.92	41	18.12 (7.69)	.94/.43/-.57
QoL	101	34.25 (7.63)	.70/.60/1.41	57	36.75 (7.68)	.65/.79/2.35	42	35.50 (8.67)	.71/1.33/3.54
PAS	101	26.46 (3.56)	.82/-.37/-.30	56	27.93 (2.79)	.76/-.83/.43	42	27.88 (3.55)	.86/-.81/.48
IAS	101	15.36 (2.93)	.80/-.43/.30	56	15.75 (2.83)	.80/-.78/1.03	42	15.83 (2.61)	.84/-.18/-.46
BRS	101	19.24 (3.02)	.40/-.51/.70	57	20.11 (2.45)	.20/-.98/1.18	42	21.55 (4.17)	.81/-.06/.01
ACS	100	44.83 (8.36)	.84/-.38/-.16	56	46.66 (7.43)	.85/-.33/-.43	42	47.35 (7.90)	.85/-.92/1.21
PTGI	100	70.54 (20.03)	.95/-1.22/2.92	56	74.16 (23.91)	.98/-1.74/3.18	40	77.23 (20.13)	.97/-1.61/4.64
PTGI- NP	100	16.88 (5.60)	.88/-1.01/1.17	56	17.82 (6.06)	.94/-1.45/2.19	40	18.68 (5.09)	.81/-1.36/3.36
PTGI- RO	100	22.35 (7.58)	.90/-.83/.68	56	23.93 (7.80)	.93/-1.70/2.97	40	24.73 (7.14)	.78/-1.45/2.87
PTGI- PS	100	13.80 (4.16)	.87/-1.11/2.15	56	14.34 (4.79)	.92/-1.56/2.54	40	14.92 (3.99)	.87/-1.59/4.30
PTGI- AL	100	10.77 (3.11)	.74/-1.30/2.82	56	10.98 (3.79)	.88/-1.50/2.04	40	11.45 (3.12)	.76/-1.46/3.35
PTGI- SC	100	6.74 (2.51)	.63/-.78/.38	56	7.09 (2.75)	.75/-1.22/.99	40	7.45 (2.31)	.78/-1.38/2.75

Notes: M – Mean, *SD* – Standard deviation, α – Cronbach's alpha, *S* – Skew, *K* – Kurtosis, T1 – Intake, T2 – Post-intervention, T3 – One-year follow-up, CESD-14 – Center for Epidemiologic Studies Depression Scale, 14-item version, GAD-7 – Generalized Anxiety Disorder, QoL – Quality of Life, PAS – Personal Agency Scale, IAS – Interpersonal Agency Scale, BRS – Brief Resilience Scale, ACS – Awareness of Connectedness Scale, PTGI – Post-traumatic Growth Inventory, NP – New Possibilities Subscale, RO – Relating to Others Subscale, PS – Personal Strength Subscale, AL – Appreciation of Life Subscale, SC – Spiritual Change Subscale

Lifetime experience of IPV was calculated by totaling "yes" responses on the 15 CAS_R-SF items. Subscale scores for lifetime physical, sexual, and psychological violence were similarly calculated. On the scale of lifetime experience of IPV, 64% of participants scored 11 or higher (out of a possible 15). Most participants (73%) reported being afraid of a partner at some point.

Recent IPV (abuse experienced by participants in the 12 months before starting *nato' we ho win*) including subscale scores for physical, sexual, and psychological violence, was calculated for the CAS_R-SF. Approximately half (54%) of participants responded "yes" to "Are you currently in a relationship?" and 29% of participants who were currently in relationships reported being afraid of their partner. Descriptive statistics on lifetime and recent IPV (CAS_R-SF) and PTSD (PCL-5) are presented in Table 2.

Table 2. Participant Demographics and Mean Scores on IPV and Trauma at Intake

	n	*M (SD)*	α/S/K
CAS_R-SF—Lifetime			
Total	99	8.77 (4.75)	.92/-.40/-.96
Physical	99	3.33 (1.68)	.79/-.81/-.51
Sexual	99	1.03 (0.83)	.60/-.06/-1.53
Psychological	99	4.40 (2.60)	.85/-.09/-1.18
CAS_R-SF—Recent			
Total	50	21.16 (18.97)	.96/.61/-.63
Physical	50	8.48 (7.30)	.91/.48/-.76
Sexual	51	1.82 (2.39)	.76/1.42/1.42
Psychological	51	10.75 (10.06)	.91/.63/-.72
PCL-5			
Total	99	33.77 (19.50)	.96/.04/-.76

Notes: M – Mean, SD – Standard deviation, α – Cronbach's alpha, S – Skew, K – Kurtosis, CAS_R-SF – Composite Abuse Scale Revised–Short Form, PCL-5 – Post-traumatic Stress Disorder Checklist for DSM-5

Correlations

Table 3. Inter-scale Correlations at T1, T2, and T3

	M (SD)	CAS_R-SF Ever	CAS_R-SF Recent	PCL-5	CESD-14	GAD-7	QoL	PAS	IAS	BRS	ACS
PCL-5	33.77 (19.50)	.49**	.36*								
CESD-14	18.09 (7.02)	.08	.28*	.50**							
GAD-7	20.54 (6.59)	.16	.26	.47**	.66**/ .49**/ .86**						
QoL	34.25 (7.63)	-.17	-.24	-.18	-.22*/ -.03 / -.17	-.07/ -.15/ -.13					
PAS	26.46 (3.56)	.08	.18	-.09	-.26*/ -.43**/ -.62**	-.12/ -.30*/ -.56**	.18/ .17/ .18				
IAS	15.36 (2.93)	.05	.07	.10	-.19/ -.37**/ -.60**	-.00/ -.34*/ -.53**	-.04/ .09/ .27	.40**/ .45**/ .52**			
BRS	19.24 (3.02)	.12	.11	.08	-.18/ -.39**/ -.66**	-.23*/ -.42**/ -.68**	-.22*/ .13/ .31*	.18/ .36**/ .49**	-.02/ .18/ .43**		
ACS	44.83 (8.36)	-.04	.11	.01	-.17/ -.24/ -.43**	-.06/ -.10/ -.44**	.04/ .07/ .22	.33**/ .31*/ .46**	.35**/ .26/ .60**	.14/ .39**/ .41**	
PTGI	70.54 (20.03)	.30**	.14	.09	-.30**/ -.17/ -.48**	-.20*/ -.15/ -.43**	.00/ -.05/ .01	.29**/ .31*/ .47**	.31**/ 16/ .38*	.29**/. 27*/ .50**	.33**/.30*/ .46**

Notes: Data on CAS_R-SF and PCL-5 only collected at T1.
*$p \leq .05$; **$p \leq .01$; ***$p \leq .001$
M – Mean, SD – Standard deviation, T1 – Intake, T2 – Post-intervention, T3 – One-year follow-up, CAS_R-SF – Composite Abuse Scale Revised–Short Form, PCL-5 – Post-traumatic Stress Disorder Checklist for DSM-5, CESD-14 – Center for Epidemiologic Studies Depression Scale, 14-item version; GAD-7 – Generalized Anxiety Disorder, QoL – Quality of Life, PAS – Personal Agency Scale, IAS – Interpersonal Agency Scale, BRS – Brief Resilience Scale, ACS – Awareness of Connectedness Scale, PTGI – Post-Traumatic Growth Inventory

At intake, there were statistically significant correlations between self-reported PTSD symptoms (PCL-5) and lifetime experiences of IPV (CAS_R-SF; $r = .49$, $p \leq .01$), as well as IPV experienced in the last year ($r =. 36$; $p \leq .05$). PTSD symptoms were also statistically significantly correlated with symptoms of Major Depressive Disorder (CESD-14; $r = .50$, $p \leq .01$) and Generalized Anxiety Disorder (GAD-7; $r = .47$, $p \leq .01$). Lifetime experience of IPV (CAS_R-SF) was statistically significantly correlated ($r = .30$, $p \leq .01$) with post-traumatic growth scores (PTGI). Self-reported symptoms of Major Depressive Disorder (CESD-14) were statistically significantly inversely correlated with post-traumatic growth (PTGI; $r = -.30$, $p \leq .01$) and were statistically significantly inversely correlated with quality of life (QoL; $r = -.22$, $p \leq .05$), and personal agency (PAS; $r = -.26$, $p \leq .05$) scores. Anxiety symptoms (GAD-7) were statistically significantly inversely correlated with resilience (BRS, $r = -.23$, $p \leq .05$). There was also a statistically significant inverse correlation between quality of life and resilience ($r = -.22$, $p \leq .05$). Personal (PAS) and interpersonal (IAS) agency scores were statistically significantly positively correlated ($r = .40$, $p \leq .01$) and both measures were statistically significantly positively correlated with awareness of connectedness (ACS and PAS; $r = .33$, $p \leq .01$; ACS and IAS; $r =.35$, $p \leq .01$) and PTGI (PTGI and PAS; $r = .29$, $p \leq .01$; PTGI and IAS; $r = .31$, $p \leq .01$). There was also a statistically significant positive correlation between the ACS and PTGI ($r = .33$, $p \leq .01$).

Post-intervention (Time 2), participants' CESD-14 scores were statistically significantly positively correlated with GAD-7 scores ($r = .49$, $p \leq .01$) and statistically significantly inversely correlated with PAS ($r = -.43$, $p \leq .01$), IAS ($r = -.37$, $p \leq .01$), and BRS ($r = -.39$, $p \leq .01$) scores. GAD-7 scores were statistically significantly inversely correlated with PAS ($r = -.30$, $p \leq .05$) and IAS ($r = -.34$, $p \leq .05$) and statistically significantly inversely correlated with BRS

scores (r = -.42, $p \leq .01$). PAS scores were statistically significantly positively correlated with IAS (r = .45, $p \leq .01$) and BRS (r = .36, $p \leq .01$) scores and statistically significantly positively correlated with ACS (r = .31, $p \leq .05$) and PTGI (r = .31, $p \leq .05$) scores. BRS scores were statistically significantly positively correlated with ACS (r = .39, $p \leq .01$) and statistically significantly positively correlated with PTGI scores (r = .27, $p \leq .05$). ACS scores were statistically significantly positively correlated with PTGI (r = .30, $p \leq .05$) scores. QoL was not statistically significantly correlated with any other measures at Time 2.

At one-year post-intervention (Time 3), participants' CESD-14 scores were statistically significantly positively correlated with GAD-7 scores (r = .86, $p \leq .01$) and statistically significantly inversely correlated with PAS (r = -.62, $p \leq .01$), IAS (r = -.60, $p \leq .01$), BRS (r = -.66, $p \leq .01$), ACS (r = -.43, $p \leq .01$), and PTGI (r = -.48, $p \leq .01$) scores. GAD-7 scores were statistically significantly inversely correlated with scores on the PAS (r = -.56, $p \leq .01$), IAS (r = -.53, $p \leq .01$), BRS (r = -.68, $p \leq .01$), ACS (r = -.44, $p \leq .01$), and PTGI (r = -.43, $p \leq .01$). PAS scores were statistically significantly positively correlated with IAS (r = .52, $p \leq .01$), BRS (r = .49, $p \leq .01$), ACS (r = .46, $p \leq .01$), and PTGI (r = .47, $p \leq .01$) scores. BRS scores were statistically significantly positively correlated with ACS (r = .41, $p \leq .01$) and PTGI scores (r = .50, $p \leq .01$). ACS scores were statistically significantly positively correlated with PTGI (r = .46, $p \leq .01$) scores. QoL was statistically significantly correlated with the BRS (r = .31, $p \leq .05$) at Time 3. QoL was not statistically significantly correlated with any other measures at Time 3.

Multilevel Modelling

Table 4. Two-level Mixed Model

	Fixed effects		Random effects		ICC
	Average baseline level (γ_{00})	Average growth effect (γ_{10})	Between person variance in baseline level (τ_{00})	Within individual variance (σ^2)	
	Estimate (SE), [CI]	*Estimate (SE), [CI]*	*Estimate (SE), [CI]*	*Estimate (SE), [CI]*	
CESD-14	18.109 (.661)***	-2.074 (.609)**	24.441 (6.958)***	23.757 (6.101)***	.533
	[16.798, 19.421]	[-3.294, -.853]	[13.962, 42.680]	[14.361, 39.300]	
GAD-7	20.262 (.615)***	-1.691 (.537)**	19.193 (6.069)**	21.848 (5.728)***	.514
	[19.043, 21.482]	[-2.768, -.615]	[10.326, 35.671]	[13.069, 36.524]	
QoL	34.414 (.745)***	.804 (.716)	-[1]	57.362 (7.261)	
	[32.938, 35.890]	[-.621, 2.229]		[44.760, 73.514]	
PAS	26.589 (.328)***	.718 (.240)**	5.632 (1.694)**	5.851 (1.645)***	.473
	[25.939, 27.241]	[.237, 1.198]	[3.123, 10.155]	[3.371, 10.152]	
IAS	15.351 (.281)***	.320 (.232)	- [1]	8.082 (.896)***	
	[14.797, 15.906]	[-.138, .778]		[6.504,10.043]	
BRS	19.209 (0.280)***	1.154 (0.284)***	3.090 (2.286)	5.079 (2.368)*	.491
	[18.653, 19.765]	[.588, 1.719]	[.725, 13.172]	[2.036, 12.668]	
ACS	45.036 (.804)***	1.157 (.527)*	38.491 (10.635)***	28.468 (7.461)***	.588
	[43.444, 46.627]	[.104, 2.210]	[22.397, 66.152]	[17.032, 47.583]	
PTGI	70.620 (2.063)***	3.162 (1.314)*	303.288 (113.771)*	132.148 (111.892)	.504
	[66.528, 74.712]	[.527, 5.799)	[145.394, 632.648]	[25.138, 694.682]	
PTGI- NP	16.892 (.561)***	.847 (.374)*	9.358 (16.918)	22.502 (16.634)	.504
	[15.783, 18.002]	[.099, 1.594)	[.271, 323.967]	[5.284, 95.819]	
PTGI- RO	22.322 (.770)***	1.086 (.535)	-[1]	59.770 (7.990)***	
	[20.798, 23.848]	[-.018, 2.153]		[45.993, 77.674]	
PTGI- PS	13.837 (.429)***	.489 (.301)	4.810 (16.604)	13.775 (17.157)	.492
	[12.987, 14.687]	[-.115, 1.092)	[.006, 4172.738]	[1.199, 158.231]	
PTGI- AL	10.760 (.320)***	.385 (.209)	7.016 (1.811)***	3.576 (1.710)*	.514
	[10.125, 11.393]	[-.034, .803]	[4.230, 11.636]	[1.401, 9.129]	
PTGI- SC	6.754 (.248)***	.406 (.186)*	2.154 (1.463)	4.151 (1.401)**	.511
	[6.263, 7.246]	[.036, .776]	[.569, 8.155]	[2.142, 8.043]	

Note: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$ – Statistically significant; SE- Standard error; CI-95% Confidence interval; ICC-intraclass correlation; CESD-14 – Center for Epidemiologic Studies Depression Scale; 14-item version; GAD-7 – Generalized Anxiety Disorder; QoL – Quality of Life; PAS – Personal Agency Scale; IAS – Interpersonal Agency Scale; BRS – Brief Resilience Scale; ACS – Awareness of Connectedness Scale; PTGI – Post-Traumatic Growth Inventory; NP – New Possibilities Subscale; RO – Relating to Others Subscale; PS – Personal Strength Subscale; AL – Appreciation of Life Subscale; SC – Spiritual Change Subscale

[1] This covariance parameter is redundant. The test statistic and confidence interval cannot be computed.

Multilevel modeling (MLM) was conducted to assess trend effect over time. MLM analyses are also known as linear mixed models and work well for analyzing unbalanced longitudinal data sets; as such, MLM was appropriate for the current study where data were not collected from all participants post-intervention (Time 2) and at the one-year follow-up (Time 3).

There were statistically significant ($p < .001$) baseline effects on all scales (Table 4); specifically, the mean scores of all scales at the beginning of the current study were statistically significantly different from zero. As hypothesized, there were statistically significant increases in participants' self-reported sense of resilience (BRS; r =1.154, p < .001), personal agency (PAS; $r = .718$, $p < .01$), connectedness (ACS; $r = 1.157$, $p < .05$), and post-traumatic growth (PTGI; $r = 3.162$, $p < .05$), as well as the PTGI New Possibilities ($r = .847$, $p < .05$) and Spiritual Change ($r = .406$, $p < .05$) subscales.

There were statistically significant decreases in participants' self-reported symptoms of anxiety (GAD-7; $r = -1.691$, $p < .01$) and depression (CESD-14; $r = -2.074$, $p < .05$) over the course of *nato' we ho win*, from intake to the one-year follow-up. There were no statistically significant differences for interpersonal agency (IAS) or quality of life (QoL) scores over the course of *nato' we ho win*.

Intraclass correlation (ICC) was calculated using the within- and between-individual variances to measure the proportion of the variance due to differences between individuals. ICC on all measures falls between .473 and .588. Thus, the ICC results imply that 47% and 59% of the variation in the scores is due to differences between individuals stemming from other factors not measured in the current study.

Discussion

nato' we ho win is a trauma-and-violence-informed, artistic, and cultural intervention, designed to support Indigenous women who have experienced IPV, that took place one evening per week for 13 weeks. *nato' we ho win* is led by a facilitator, a domestic violence advocate, and an Elder. *nato' we ho win* offered women knowledge of traditional Indigenous culture, opportunities to engage creatively in art, provided tools for self-care, and an opportunity to

connect and receive support from facilitators, advocates, elders, and peers. Participants were introduced to Indigenous ways of knowing and were supported during the process of reclamation of cultural knowledge and healing through creative art projects. *nato' we ho win* provided an opportunity for Indigenous women to connect and support each other. Participants could learn, grow, and heal as they practiced art, culture, and self-care. Participants built and maintained healthy lifestyles working toward *miýo-pimātisiwin*. *nato' we ho win* assisted Indigenous women survivors in healing from IPV, not by focusing on their experiences of IPV directly, but by providing cultural teachings, arts-based and self-care activities, and peer support aimed at building resilience and post-traumatic growth, increasing connectedness, and improving their overall well-being.

The intervention and the research study were trauma-and-violence-informed, culturally-informed, and strengths-based. The results of the present study add to a small body of research literature that indicates that artistic and cultural interventions are effective for supporting people who have experienced violence and other potentially psychologically traumatic events (Archibald et al., 2012; Becker, 2015; Gone, 2013; Ikonomopoulos et al., 2017; Lester-Smith, 2013; Özkafacı & Eren, 2020; Pifalo, 2006; Recollet et al., 2009).

Our results indicate *nato' we ho win* had a positive impact on the well-being of Indigenous women survivors of IPV who participated in the intervention. At one-year follow-up, participant scores on several self-report measures of well-being were statistically significantly higher than at intake, providing initial evidence that *nato' we ho win* was beneficial. Specifically, the longitudinal MLM results indicated within-participant increases in self-reported sense of resilience, personal agency, connectedness, and post-traumatic growth. There were also increases on the PTGI New Possibilities and Spiritual Change subscales from intake to one-year follow-up.

The results also indicate decreases in participants' self-reported symptoms of depression and anxiety that were maintained at the one-year follow-up.

The average scores for participants on self-reported quality of life increased between intake and post-intervention, but the increase was not statistically significant. The average scores for participants were slightly lower when measured at the one-year follow-up; however, the average scores at one-year were still higher than the quality of life ratings at intake. The same pattern appeared for average scores on the Interpersonal Agency Scale and Relating to Others and Personal Strength subscales of the PTGI.

There was substantial variation in the scores due to differences between individuals stemming from other factors not measured in the current study. The participants may have had unique experiences independent of *nato' we ho win* participation that influenced the reported changes (e.g., changes in family or socioeconomic status). Qualitative data collected during focus groups post-intervention and at the one-year follow-up is consistent with the quantitative results and provides context to these unique experiences. Accordingly, future intervention research should also include both qualitative and quantitative measures. Mixed-methods studies provide rich data to better answer the research questions as quantitative results can provide an indication of the generalizability of qualitative findings, and qualitative results provide context to quantitative data (Onwuegbuzie & Leech, 2005).

As expected, there were statistically significant positive correlations between several variables of interest at intake. Lifetime experience of IPV was correlated with PTSD as well as post-traumatic growth; symptoms of PTSD, Major Depressive Disorder, and Generalized Anxiety Disorder were all correlated; personal and interpersonal agency, awareness of connectedness, and post-traumatic growth were also all correlated. Symptoms of Major

Depressive Disorder were statistically significantly inversely correlated with post-traumatic growth, quality of life, and personal agency scores. Symptoms of Generalized Anxiety Disorder were statistically significantly inversely correlated with resilience.

Several inter-scale correlations were also consistent with our expectations at post-intervention and the one-year follow-up. Participants' self-reported depression and anxiety scores at post-intervention remained correlated with anxiety scores and inversely correlated with personal agency, interpersonal agency, and resilience scores. In addition, personal agency, interpersonal agency, resilience, and awareness of connectedness were positively inter-correlated following the intervention.

At one-year follow-up, participant self-reported scores on measures of depression remained positively correlated with anxiety scores and inversely correlated with personal agency, interpersonal agency, and resilience scores. Self-reported depression scores were inversely correlated with awareness of connectedness and post-traumatic growth scores at one-year follow-up. In addition, personal agency, interpersonal agency, resilience, awareness of connectedness, and post-traumatic growth were positively inter-correlated following the intervention. Contrary to our expectations, self-reported quality of life scores were not significantly correlated with personal agency, interpersonal agency, awareness of connectedness, and post-traumatic growth at any of the three time points (i.e., intake, post-intervention, one-year follow-up).

These results provide initial evidence that *nato' we ho win* is an effective intervention for supporting Indigenous women who have experienced IPV and other potentially psychologically traumatic events. The intervention appears to have supported the participants in developing resilience, personal agency, connectedness, and post-traumatic growth, as well as reducing

symptoms of depression and anxiety. At one-year follow-up, participants' self-reported scores on measures of well-being remained improved relative to scores at intake.

nato' we ho win was designed as an intervention for Indigenous women who experienced IPV; nevertheless, other Indigenous women (those who have not experienced IPV) may benefit from participation in *nato' we ho win*. Subsequent similar intervention research in other locations, with other groups of Indigenous women, would help to build the evidence base for *nato' we ho win* specifically and for trauma-and-violence-informed cultural and arts-based intervention programs generally.

Limitations

The current study has several limitations that should caveat any implications and provide direction to inform future research. First, the data analyzed in the present study came from self-report questionnaires, which always involve limitations; to attempt to mitigate these limitations, an advocate was available to assist participants and answer questions as needed. Second, the sample was an open, self-referred group, which meant there was substantial diversity among participants (e.g., prior experiences of IPV; other potentially psychologically traumatic events; prior opportunities to learn about and connect with cultural and artistic activities). Future studies should be conducted to replicate the current study results and further assess the nuanced interactions between participation in *nato' we ho win* and quality of life, resilience, personal agency, interpersonal agency, cultural connectedness, post-traumatic growth, and symptoms of Major Depressive Disorder and Generalized Anxiety Disorder. Third, the sample consisted of 101 Indigenous women at intake, which may be considered a relatively small sample; nevertheless, the current research makes a substantial contribution to the literature as one of the first studies to use pre- and post-intervention measures of well-being with Indigenous women

who participated in a trauma-and-violence-informed artistic and cultural intervention. Future studies of *nato' we ho win* and similar programs can help to maximize the generalizability of such interventions to support Indigenous women who have experienced IPV. Fourth, the current study included 42 participants who provided data at all three data collection points (i.e., intake, post-intervention, one-year follow-up); accordingly, the women who participated in successive data collection may have experienced more positive outcomes and therefore reported more statistically significant improvements on self-reported measures of well-being than women who did not complete the intervention, and participate in follow-up data collection. Using MLM was a good fit for the data, as this method helps to offset imbalanced datasets. Future studies could benefit from using MLM and assessing reasons for participant attrition through additional survey questions or dedicated exit interviews.

Implications

The current study produced several important results. First, there is now a program manual and facilitator's guide[ii] for *nato' we ho win* that organizations and communities can adapt to fit their teachings and ways of healing. Second, there is now evidence that *nato' we ho win*, an arts-based and cultural intervention, was effective for supporting the healing of a sample of Indigenous women who had experienced IPV. Specifically, the current results indicated *nato' we ho win* participants reported statistically significant increases in their self-reported sense of resilience, personal agency, connectedness, and post-traumatic growth, as well as statistically significant decreases in self-reported symptoms of depression and anxiety. The quantitative results are consistent with the qualitative results and participants' responses to the program evaluation, which will be presented in additional articles. Third, the current research substantially contributes to the literature as one of the first studies to use pre- and post-

intervention measures of well-being with Indigenous women. Results add to the evidence-base supporting the use of artistic and cultural interventions for people who have experienced violence and other potentially psychologically traumatic events and supporting the use of interventions tailored to fit with the teachings of Indigenous Knowledge Keepers and Elders. Lastly, similar mixed-methods multimodal studies would support the generalizability of the effectiveness of *nato' we ho win*.

Systemic change is needed to lower the high rates of IPV against Indigenous women in Canada (Allen, 2020; Native Women's Association of Canada, 2020; Statistics Canada, 2016). The delivery of interventions such as *nato' we ho win* are one piece of an array of services that can support Indigenous victims/survivors of IPV. Results of the current study provide evidence that engagement in *nato' we ho win* had a positive impact on participants' well-being. The results demonstrate support for a trauma-and-violence-informed artistic and cultural intervention for Indigenous women survivors of IPV. We recommend adapting, implementing, and evaluating, *nato' we ho win* for diverse cultures and populations.

Notes

[i] *miýo-pimātisiwin* is Cree and can be translated as "good life" or "living life well."

[ii] The *nato' we ho win* program manual and facilitator's guide are available at pathssk.org/natowehowin.

[iii] More information about the Knowledge Hub, a project of the Centre for Research and Education on Violence Against Women and Children at Western University, can be found at http://kh-cdc.ca/en/home.html.

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