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**The Mental Health and Well-Being of Canadian Indigenous and Non-Indigenous Women
Abused by Intimate Partners**

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Abstract

Intimate partner violence (IPV), mental health, disabilities, and child abuse history were examined for 292 Indigenous compared to 295 non-Indigenous Canadian women. IPV was assessed by the Composite Abuse Scale and mental health by the Symptom Check List-10, Centre for Epidemiological Studies - Depression - 10, the PTSD Checklist, and Quality of Life Questionnaire. Scores did not differ nor were they in the clinical ranges for the two groups. In a MANCOVA on the mental health/well-being scales, with IPV severity as a covariate, only disability was significantly associated with more severe mental health symptoms. Suggestions for service providers are presented.

Key words: Intimate partner violence; violence against women; Indigenous women; mental health; trauma; disability; child abuse

The Mental Health and Well-Being of Canadian Indigenous and Non-Indigenous Women Abused by Intimate Partners

Within the Canadian context, Indigenous women, i.e., women of First Nations, Métis, and Inuit descent, are over-represented among women who have been abused by intimate partners. While constituting only 4% of Canadian women, 10% of Indigenous women report intimate partner violence (IPV) compared to 3% of non-Indigenous women (Statistics Canada, 2016). Yet, there is relatively little research about this.

Higher IPV rates for Indigenous women occur within the context of being victims of multiple forms of violence. Brennan (2011) noted that, in 2009, 13% of all women of Indigenous background had been victimized violently, including sexual and severe forms of physical assaults. Notably, this statistic did not include spousal abuse. Further, a recent analysis of the 2014 Canadian General Social Survey (GSS) examining IPV and child maltreatment concluded that Indigenous individuals are at higher risk for both IPV and child maltreatment, with a child abuse history significantly increasing IPV risk in Indigenous adults (Brownridge et al., 2016). The Truth and Reconciliation Commission Report (2015) brought to public attention the tragic legacy of colonization, residential schools, and the “Sixties Scoop” that has contributed to violence and suffering, including IPV, among Indigenous people in contemporary times. Contributing to the high levels of violence are structural issues in the community including poverty, lack of services, the loss of traditional lifestyles, and parental role models (Brownridge, 2008; Burnette, 2015).

Although the Canadian National Inquiry into Missing and Murdered Aboriginal Women and Girls (with estimates of approximately 1,000 to nearly 4,000 missing and murdered women since 1970) raised the hope that all forms of violence against Indigenous women are finally being acknowledged (Anderson, Kubik, & Hampton, 2010), violence against women of

Indigenous background and its consequences remain of great concern. The multiple forms of oppression and abuse are associated with serious physical and mental health problems for Indigenous women (Bourassa, Blind, Dietrich, & Oleson, 2015; Kubik, Bourassa, & Hampton, 2009), including addictions (Firestone, Tyndall, & Fischer, 2015). Some characterize the mental health problems as “complex trauma” (Söchting, Corrado, Cohen, Ley, & Brasfield, 2007), while others describe it as “intergenerational trauma” (Roy, Noormohamed, Henderson, & Thurston, 2015). Indigenous women in Canada also are 1.5 times as likely to report disabilities compared to non-Indigenous women (Statistics Canada, 2017).

To provide more knowledge about the experiences of Indigenous women and IPV, the current article presents research from the Healing Journey project. This involved comparing 292 Indigenous women with 295 non-Indigenous women from Canada’s three prairie provinces examining the nature of the abuse from intimate partners, their physical and mental health and well-being, disability status and child abuse history.

Intimate Partner Violence in the Canadian Context

As in other Western countries, IPV against women is a significant social issue that often results in injury, emotional harm, and, for a small number of Canadian women, death (Johnson, 2006). Typically, male partners abuse women in multiple ways, including sexual abuse, emotional abuse, and coercive control (Stark, 2007). Women can remain at risk of abuse even after leaving abusive partners (Brownridge et al., 2008; Fleury, Sullivan, & Bybee, 2000). Notably, Canadian Indigenous women are significantly more likely to be abused post-separation than non-Indigenous women (Pederson, Malcoe & Pulkingham, 2013; Spiwak & Browning, 2005).

Physical and Mental Health Disabilities and Interpersonal Violence

Considerable research has documented physical and mental health issues associated with IPV and connections between IPV, child abuse, and disabilities. We adopt a bio-psycho-social definition of disability as “impairments, activity limitations and participation restrictions, referring to the negative aspects of the interaction between an individual (with a health condition) and that individual’s contextual factors (environmental and personal factors).” (Leonardi et al, 2006, cited in World Health Organization and the World Bank, 2011, p. 4). Thus, this definition allows for disabilities associated with physical and mental health.

Women with disabilities are vulnerable to IPV (Du Mont & Forte, 2014) and non-disabled women may develop disabilities as a result of IPV (Plichta, 2004). In a national US study, women with disabilities reported significantly more physical violence, stalking, and rape than women without (Breiding & Armour, 2015), a finding supported in other US (Hahn, McCormick, Silverman, Robinson, & Koenen, 2014) and Canadian research (Yoshida, Du Mont, Odette, & Lysy, 2011). Brownridge (2006) found that abused Indigenous Canadian women reported more disabilities than abused non-Indigenous women (Brownridge, 2006).

Women are often diagnosed with mental health issues such as depression and anxiety related to their partners’ abuse (Dowling Evans & Shapiro, 2011; Perez, & Johnson, 2008). Further, researchers find high rates of Post-Traumatic Stress Disorder (PTSD) for women experiencing ongoing IPV (Coker, Weston, Creson, Justice, & Blakeney, 2005; Dutton, et al., 2005). In exploring disability and IPV, it is important then to consider mental health.

Confounding the relationship between disability and IPV are women’s histories of child maltreatment, which are associated with mental health diagnoses (especially child sexual abuse), physical disabilities (often because of child physical abuse) (Ballan et al., 2014). PTSD has been associated with childhood abuse, especially child sexual abuse (Clemmons, Walsh, DiLillo &

Messman-Moore, 2007), and IPV (Becker, Stuewig, & McCloskey, 2010). As many women experience both forms of abuse, examining trauma is important. Furthermore, abused children are vulnerable to further victimization as adolescents or adults (Widom, Czaja, & Dutton, 2014).

No one study can examine all the variables affecting women abused by partners. For example, some of the studies cited examined PTSD without considering other mental health issues (i.e. Becker, Stuewig, & McCloskey, 2010; Clemmons et al., 2007) while others looked at PTSD and mental health conditions but did not assess the extent that these constitute disabilities (Dutton et al., 2005; Perez & Johnson, 2008). Many did not consider racial background as a central factor in their analyses. All of these factors are addressed in the current study.

Study Theoretical Framework

The design of the current study was informed by an ecological framework (Heise, 1998) that recognizes that IPV can best be explained by taking into account multiple, interacting, embedded factors. Specifically, the personal history and characteristics of the woman and her partner are embedded within the immediate context of their relationship, which has its own dynamic and is embedded in other communities (e.g., family, neighbourhood, and workplace). These have their own norms and characteristics and are embedded within the “macrosocial,” which includes culture and economic and political systems (Heise, 2011). This framework influenced decisions about sampling (e.g., including women who are often overlooked in order to incorporate a variety of communities) and the survey (e.g., adding questions about the women’s abuse history, employment history and socioeconomic circumstances). Further, it sensitized us to the need to consider how the macro-social might inform our interpretation of study results.

More recently, Burnette (2015; Burnette & Figley, 2017) developed the “Ecosystemic Framework of Historical Oppression, Resilience, and Transcendence” in research related to

Indigenous peoples in the U.S. It considers both oppressive historical conditions, such as colonization, and those of the present, such as discrimination, in explaining the current problem of IPV. Similar to Heise's ecological framework, the framework proposes nesting risk and protective factors at the individual level with those at the couple and family level, which are, in turn, embedded within those at the level of community and culture, which are embedded within those at the societal level (Burnette & Figley, 2017). Importantly, it can be applied in the Canadian context, because it allows for variation in the specifics of both the historical and local conditions. This informed our interpretation of the results.

In the General Social Survey on Victimization (GSS) in Canada (Statistics Canada, 2011), with data collected in 2009 (closest to that in the current study), about 5% of women reported abuse by partners in the past five years. The sites of the current research, Canada's three prairie provinces, had that country's highest rates of self-reported spousal violence (national average = 6%; Saskatchewan = 8.2%; Alberta = 7.6%; Manitoba = 7.4%). Indigenous people in the prairie provinces constitute 39.2% of the First Nations population and 50.4% of the Métis population in Canada. The current study, then, was conducted in a part of Canada with a significant Indigenous population and where IPV is a serious social problem. The objectives of the study were to: (1) generate a descriptive profile of women who experienced IPV in Canada's prairie provinces, taking into account their social locations as Indigenous or non-Indigenous women; and (2) explore the abuse experiences, mental health, physical health, and disability status of the Indigenous women compared to those of the non-Indigenous women.

Method

"The Healing Journey" is a longitudinal, Canadian study with a convenience sample of 665 abused women who sought shelter and/or counseling in the three western provinces of Alberta,

Saskatchewan, and Manitoba. Both academics and community agency research team members assisted in designing the research, recruiting participants and interpreting the results. Data for the entire study were collected in seven waves between 2005 and 2009, although the current manuscript analyses only data from Waves 1 and 2.

The research protocols were approved by the Ethical Review committees of the six universities of the principle investigators (blinded for review). The intent was to recruit broadly to access women seldom included in research such as those from remote communities. The organizations included violence against women shelters and counselling agencies in urban, rural, and northern sites. Study participants responded to posters, attended information sessions at agencies, or agency staff provided sealed envelopes containing study information. Criteria for inclusion were: a minimum 18 years of age; the most recent IPV incident not less than three months and not longer than five years prior; commitment for the study's full four years; and no debilitating mental health issues. Honoraria of \$50 CAN were provided for each Wave.

Research Measures

The current analysis focused on three general areas: demographics, abuse history, and health/mental health. These were assessed by both standardized measures and open- and closed-ended questions (all administered verbally by the research assistants).

Child abuse and partner abuse. Child abuse history was collected via structured questions with "yes/no" answers: "Were you abused as a child or adolescent? a) physical, b) sexual, c) emotional/psychological, d) witnessing abuse among family members (consistent with (Elias, 2012; Evans-Campbell, 2006). The responses were then recoded as "no child abuse," "any child sexual abuse," and "child abuse excluding sexual abuse" (physical abuse and/or emotional/psychological/verbal abuse and/or witnessing violence).

The nature of the IPV was assessed by the Composite Abuse Scale (CAS) (Hegarty, & Valpied, 2013). This 30-item screening measure consists of items rated for frequency in the past 12 months (e.g. “Raped me,” or “Followed me”) on a six-point scale from “never” to “daily,” with a possible total of 150. The four subscales are: Severe Combined Abuse (8 items; possible score 0-40; suggested cut-off = 1); Physical Abuse (7 items; possible score 0-35; cut-off = 1); Emotional Abuse (11 items; possible score 0-55; cut-off = 3); and Harassment (4 items; possible score 0-20; cut-off = 2). The clinical cut-off for the Total score is 3 or 7 to minimize false positives (Hegarty & Valpied, 2013). The scale has demonstrated convergent and discriminant validity (Hegarty & Valpied, 2013). Cronbach’s alpha in the current study is .93.

Mental health and well-being. Mental health was assessed with three commonly-used standardized measures. The Symptom Checklist-10 (SCL-10) (Nguyen, Attkisson, & Stegner, 1983) is a 10-item form of the SCL-90 (Derogatis & Cleary, 1977) and is used as a screening tool to assess global mental health functioning and psychological distress in the previous week. Items (e.g., “In the past week, how much were you distressed by feeling lonely?”) are endorsed with a 0 to 4 Likert scale, with zero indicating “not at all,” and four indicating “extremely,” with higher scores indicating more psychological distress. Suggested clinical cut-off scores are one standard deviation above the mean (Jacobson, Follette, & Revenstorf, 1984). A clinical cutoff of 14.2 was established based on the research of Müller, Postert, Beyer, Furniss, & Achtergarde (2010). Cronbach’s alpha in the current study is .89.

The CES-D-10 (Centre for Epidemiological Studies - Depression), a short form of the CES-D-20 (Radloff, 1977) documents depression symptoms in the previous week (Andresen, Malmgren, Carter, & Patrick, 1994). Ten items (e.g., “In the past week I was bothered by things that usually don’t bother me.”) are rated on a 0 to 3 Likert scale, with zero as “rarely or none of

the time (less than 1 day),” and three as “all of the time (5-7 days).” Internal consistency and test-retest reliability are good (Björgvinsson, Kertz, Bigda-Peyton, McCoy, & Aderka, 2013). Cronbach’s alpha in the current study is .84. Björgvinsson et al. (2013) suggest that a cut-off of 15 has the best sensitivity and specificity. Higher scores indicate more depressive symptoms.

The PTSD Checklist (Blanchard, Jones-Alexander, Buckley, & Forneris, 1996) is a 17-item self-report questionnaire that measures the three symptom clusters of posttraumatic stress disorder (PTSD) (re-experiencing (5 items), avoidance/numbing (7 items), and hyperarousal (5 items) in the previous month. Items (e.g., “In the past month how much have you been bothered by repeated, disturbing memories, thoughts or images of abuse or violence?”) are endorsed with a 0 to 4 Likert scale with zero meaning “not at all” and 4 meaning “extremely.” Higher scores indicate more PTSD symptoms. Blanchard et al. (1996) recommend a clinical cut-off of 44. Cronbach’s alpha in the current study is .92.

Well-being was assessed by The Quality of Life Questionnaire (Andrews & Withey, 1976). The original 25-item scale was shortened by Sullivan and Bybee (1999) to nine items measuring satisfaction with the overall quality of life (i.e., How do you feel about life as a whole?) on a 7-point scale and satisfaction with areas in life (i.e. How do you feel about yourself; your personal safety; the amount of fun and enjoyment you have?). Items are rated on a 7-point scale (1 = extremely pleased, 7 = terrible). Higher scale scores indicate poorer quality of life. Cronbach’s alpha for QOL in the current study is .84.

Health and disability. The women were asked to self-report physical and mental health conditions. These were subsequently coded as a disability if the women reported that these conditions affected their employability or daily activities (consistent with Breiding et al., 2015).

Research Procedures

The Healing Journey commenced in 2005, with data collected every six months over 3.5 years. To provide a baseline for the subsequent longitudinal data analysis (author citation, in preparation), the current descriptive data were from the first two waves (constituting the complete study protocol, broken into two waves because of length). The questionnaires were administered face-to-face, with female interviewers reading the questions and recording answers to ameliorate any problems with literacy. The more than 50 interviewers were a mix of upper-level undergraduate and graduate university students and professionals from the communities surveyed, all trained in their own province. A small number were Indigenous but many had worked closely in and with Indigenous communities. Interviews lasted from one to two hours. To minimize attrition, interviewers contacted the women at least once between waves and interviewed the same women as long as both remained in the study.

Data Analysis

Categorical variables were analyzed using Pearson's chi-square statistics with effect sizes using Cramer's V when the chi-square was statistically significant. Effect sizes were interpreted using Rea and Parker's (2002) benchmarks of under .10 as a "negligible" association; between .10 and under .20 as a "weak" association; between .20 and under .40 as a "moderate" association, and between .40 and under .60 as a relatively "strong" association (p. 203). Numerical data were compared with independent t-tests and one-way analysis of variance, with effect sizes calculated as *r*-values (Field, 2009). According to Cohen (1988), *r*'s of .2, .5 and .8 are the small, medium, and large reference values, respectively.

Because of the acknowledged interactions between many of the variables of interest, the final analysis was a multivariate analysis of covariance (MANCOVA) on the scores of standardized mental health/well-being measures, with the Composite Abuse Scale-Total score as

a covariate. Population group (Indigenous, non-Indigenous), disability status (yes/no) and child abuse history (yes/no) are all independent variables.

Results

Sample

With attrition of 70 women from Wave 1 ($N = 665$) to Wave 2, the total sample for the current study is 595. Of these, 205 were from Manitoba (34.5%), 185 from Saskatchewan (31.1%), and 205 from Alberta (34.5%). The 70 women who left after Wave 1 differed from the women who remained in the study in the following ways: (a) significantly younger (33.7 vs. 36.7 years on average), (b) lower yearly incomes (\$14,964 vs. \$22,429), (c) more worked full-time, (22.6% vs. 7.5%), (d) more were from medium sized centres (30,000-99,999) (25.7% vs. 12.6%) and (e) more had disabilities (57.1% vs. 42.5%).

Demographics of the Indigenous and non-Indigenous Women. In the final sample, of the women from Indigenous backgrounds ($N = 292$), 218 identified as First Nations, 73 as Métis, and one as Inuit. The non-Indigenous women ($N = 295$) included 263 White (self-reported as European origins, White, or Caucasian) (44.8%) and 32 visible minority women (5.5%, the largest groups being African-Canadian = 13, South Asian = 7, and Latin American = 8).

The Indigenous and non-Indigenous women were similar with respect to several demographic characteristics (see Table 1). The majority (90.3%) had children, with 69.3% ($n = 365$) of these aged 18 years or younger. When recruited for the study, 85.8% lived in large (100,000+) or medium-sized cities (30K to 99,999). Across Indigenous and non-Indigenous women, 62.6% had resided in a violence-against-women (VAW) shelter at some time.

The women differed on several demographic characteristics, although effect sizes were mostly negligible. The Indigenous women ($M = 35.1$ years) were an average three years younger

than non-Indigenous women ($M = 38.3$ years) ($t(582) = 3.6, p < .000, r = .15$, a negligible effect). Most (93.3%) self-identified as heterosexual, 4% as bisexual, 1.4% as lesbian, and another 8 (all Indigenous women) as “two-spirited,” with the latter representing the only significant difference between categories ($\chi^2(4) = 8.9; p = .03$, Cramer’s $V = .12$, a weak effect).

The type of relationship with abusive partners differed, with most women being divorced/separated (64% overall). A larger proportion of Indigenous women were in current girlfriend/boyfriend relationships (8.2%) than non-Indigenous women (2.7%). While 81.6% of women across racial backgrounds no longer resided with the abusive partners, the proportion of Indigenous women origin still cohabiting was significantly higher (22.6%) than the non-Indigenous women (14.3%). As might be expected, the racial backgrounds of the partners differed such that about two thirds of the partners were from the same racial background. Interestingly, 23.1% of the non-Indigenous women had Indigenous partners and 35.4% of the Indigenous women had White partners.

The demographic variables that most significantly distinguished the Indigenous from the non-Indigenous women (with effect sizes in the moderate range) are understandable given the structural disadvantages and history of colonization and residential schools. Significantly fewer Indigenous women grew up exclusively within their nuclear families (56% compared to 78.6%), more lived with relatives (8.6% compared to 3.1%), more were in foster care or criminal justice systems (29.2% versus 16.3%) and 1.4% of the Indigenous women had lived in residential schools ($\chi^2(4) = 38.4; p < .000$; Cramer’s $V = .26$, a moderate effect). In summary, as children, Indigenous women reported more out-of-home care (30.4%) than non-Indigenous women (19.2%) ($\chi^2(1) = 21.6; p < .000$; Cramer’s $V = .19$, a weak effect).

Further, highest level of education varied considerably; 40% of all women had not

completed high school, while 38% had some post-secondary education. Significantly fewer women of Indigenous origins had completed high school or attended post-secondary education ($\chi^2(3) = 42.3; p < .000$; Cramer's $V = .27$, a moderate effect). Significantly fewer women of Indigenous origins worked full-time ($\chi^2(2) = 24.7; p < .000$; Cramer's $V = .21$, a moderate effect). Correspondingly, in examining total average yearly family income from all sources (past year), women of Indigenous descent reported significantly lower incomes than non-Indigenous women ($t(529) = 3.6; p < .000$; $r = .15$, a negligible effect).

Abuse, Mental Health and Well-Being between Indigenous and non-Indigenous Women

While 75% of the total group reported some abuse as children (see Table 1), non-Indigenous women were significantly less likely to report a child abuse history compared to the Indigenous women ($\chi^2(1) = 17.5; p < .000$; Cramer's $V = .17$, a weak effect). Notably though, the two groups of women did not differ with respect to whether they reported a long-term health or mental health illness, whether this was considered a disability, the type of disability or whether the disability stemmed from an experience of abuse.

Regarding the extent of the partner abuse, only scores on two subscales of the CAS differentiated the two population groups: On the CAS Emotional abuse subscale, non-Indigenous women reported higher scores ($t(584) = 2.63; p = .009$; $r = .10$), and women of Indigenous origins reported more physical abuse ($t(585) = 3.6; p < .000$; $r = .15$), both negligible effect sizes.

The Indigenous and non-Indigenous women did not differ on the SCL-10, CED-10, PTSD checklist, or QOL. Further, none of the average scores on measures of mental health functioning (SCL-10; CED-10; PTSD checklist) were in the clinical range for either population group (see Table 2). However, almost two-thirds (63.7%) self-reported some serious medical conditions and/or long-term illnesses. A complete list of these is beyond the scope of the current

submission, especially since many disclosed multiple conditions. While an analysis of the types of mental health and health concerns did not differ across population group ($\chi^2 = 0.4$ n.s.), the most common self-reported physical illnesses were chronic pain/broken bones ($n = 43$) Irritable Bowel Syndrome/Crohn's disease ($n = 31$), Chronic Fatigue/Fibromyalgia ($n = 26$), Hepatitis C and HIV ($n = 26$). Of the mental health issues, the most commonly reported were depression ($n = 122$); and PTSD/anxiety ($n = 87$). Addiction was often concurrent with the other mental health conditions and so was counted separately, noted by 78 (26.5%) women.

About two fifths (42.4%) of the women were classified as having a disability. Among these 247 women, 30.8% described physical disabilities, 23.9% described mental health disabilities only, and 45.3% described both physical and mental health disabilities. As well, as shown in Table 1, 67.3% attributed their disabilities to abuse: 6.5% to childhood abuse, 29.3% to partner abuse and 31.5% to both partner and child abuse. There was no difference in disabilities attributed to an abuse history based on Indigenous status.

Interactions Between Disability Status, Intimate Partner Abuse, and Mental Health

The SCL-10, CES-D, PTSD Checklist and QOL scores were all significantly interrelated (r 's of from .716 - .749). Correlations between the mental health scales and the CAS-Total were numerically lower (r 's of from .14-.28) but still statistically significantly related (p 's of .01).

Because of the previously-noted interconnections between the key variables of interest and possible associations with the mental health measures, we conducted a MANCOVA on the mental health measures as the dependent variables, with the Composite Abuse Scale-Total score as a covariate and disability status (yes/no), child abuse history (yes/no) and Indigenous/non-Indigenous as independent variables (see Table 3). Disability status was the only significant main effect, such that women with disabilities reported significantly more dysfunctional scores on the

QOL, SCL-10, CES-D and PTSD checklist than women without disabilities.

Discussion

Consistent with previous research, the women in the Healing Journey study have complicated histories, with many reporting childhood abuse (79.5%), physical illnesses/mental health conditions (63.8%) and disabilities (42.4%). As expected (e.g., Brennan, 2011), statistically higher proportions of the Indigenous women had child abuse histories, grew up outside of their families of origin (including child welfare and residential schools), and had lower education, employment, and income. The lack of mental health problems may reflect the resiliency of the Indigenous women, relative to the structural oppressions that they had endured.

Another significant difference (albeit a weak effect) was that more Indigenous women (22.6%) remained with partners at study start than non-Indigenous women (14.3%). While we can only guess the reason for this, Mayer (2010) suggests that staying with partners entails considering the needs of children and financial constraints, both of which may be relevant here.

While there were no differences between the Indigenous/non-Indigenous women on the overall IPV measure (CAS-Total), or CAS subscales of severe abuse or harassment, Indigenous women reported more serious physical abuse and non-Indigenous women more serious emotional abuse, although both were weak effects. The more severe physical violence is congruent with other Canadian studies of IPV and Indigenous women (Brownridge et al., 2016). However, the CAS abuse scores were all above the clinical cutoff scores for both groups, confirming that all the women had endured significant IPV. Different from what we had anticipated, there were no statistical differences between the Indigenous and non-Indigenous women on the mental health measures. The lack of differences in reported long-term illnesses and disability suggests that the similarities of the Indigenous and Non-Indigenous women on

disability characteristics were more associated with mental health symptoms than racial group.

The non-Indigenous women in our study were affected by structural inequalities, such as poverty, similar to those in a recent study of women shelter residents (Burnett, Ford-Gilboe, Berman, Wathen, & Ward-Griffin, 2016). Thus, they may be more similar to the Indigenous women than to non-Indigenous women who are more privileged. As one example, DeRiviere (2014) calculated the average income of the 414 women in Wave 5 of the Healing Journey, determining that, after controlling for household size, only 10% were above the poverty line. Hence, as a whole, the Healing Journey participants were economically disadvantaged.

Importantly though, despite their detrimental backgrounds and histories of violence victimization, on average, the mental health status of both groups of women was not within the clinical ranges of the psychological distress (SCL-10), depression (CES-D) and PTSD scales. This differs from studies concluding that abused women have serious mental health symptom using correlation/regression data that did not use clinical cutoffs (i.e., Becker et al., 2009; Clemmons et al., 2007; Dutton et al., 2005; Lacey et al., 2013; Perez & Johnson, 2008). While those studies show that higher numbers of symptoms are associated with having experienced severe violence, they cannot ascertain whether the symptoms reach or surpass clinical thresholds.

Our finding differs from Ferrari et al. (2014), who used measures with clinical cutoffs and reported that 70% of the women had psychological distress (depression, anxiety, PTSD). However, other study results were consistent with our findings. A large number of women scored below the clinical cutoff for PTSD; this was the majority of women in Anderson et al. (2012) and a little more than half the women in Coker et al. (2005). Slightly more than one-third of women reported only mild depression in Nicolaidis et al. (2009). These studies underscore the importance of using valid clinical cutoffs in research on mental health and IPV to identify those who may

require the attention of mental health professionals. At present, evidence seems to favor the conclusion that the mental health effects of IPV are not generally in the clinical range.

Previous research suggests that the mental health of women who leave abusive partners may significantly improve relatively quickly, having received counselling in VAW shelters or support groups (Abel, 2000; Tutty, 2015). As Lenore Walker (1991) wrote, “It is important to remember that not all battered women develop PTSD and even when they do, they may not need more than a support group with others in similar situations (p. 28).” Since the women in this study were recruited through similar organizations, they may have psychologically improved by the time we interviewed them, whether they were Indigenous or non-Indigenous.

Further, the sample was predominantly urban, and from large urban centres at that. As such, the Indigenous women likely had more services available to them than would be the case with women on reserve or in remote areas. Of course, when women are of Indigenous backgrounds, services should address their needs in the context of Indigenous healing (Roy et al., 2015). Unfortunately, we were not in a position to assess whether or not this was the case for the Indigenous women who participated in our study. Notably though, just as some authors suggest that Indigenous healing cannot occur without addressing the history of colonization and residential schools (Lavallee & Poole, 2010; Roy et al., 2015), non-Indigenous healing cannot occur without addressing the structural inequalities that affect women such as patriarchy, which impacts our understanding of masculinity and normalizes men’s entitlements and power, and the poverty faced by many of the women who participated in our study.

The high proportion of women with disabilities and child abuse histories is congruent with other research (i.e. Ballan et al., 2014; Wuest, et al., 2010); and the women with disabilities identified more problematic mental health than women who did not, although, on average, their

mental health status was in the normal range. Indigenous women in the current study were no more likely than non-Indigenous women to report a disability, consistent with a recent Canadian study of sexual assault survivors (Du Mont, Kosa, Macdonald, Benoit & Forte, 2017). This differs from several large Canadian studies (Brownridge, 2006; Cohen et al., 2005) that found more disabilities with respect to Indigenous women. For reasons already noted, the Indigenous women who participated in our study may have been among the healthier in their communities.

Women with disabilities are often further disadvantaged by structural inequalities associated with race, gender, age, and socioeconomic status (Ballan et al., 2014), which could contribute to the reported lower psychological wellbeing from the women with disabilities in our study. Consistent with this, others have identified large gaps in research and service provision in relation to IPV and women with disabilities (Baladarian, 2009; Ballan et al., 2014). Notably, Curry et al. (2011) estimated that only 15% of health providers who deal with women and disabilities assess for IPV. This highlights the importance of educating counselors about disabilities and disability assessment and, as Curry et al. suggest, that “cross-training needs to occur across disability, domestic violence, sexual assault, and law enforcement services” (p. 442). Ballan and Fryer (2017) concur that counsellors need more training to properly assess the needs of women with disabilities who seek services for IPV.

Limitations, Strengths and Future Directions

Similar to the large proportion of research on women with IPV histories that relies on convenience samples of women from shelters or counselling agencies (Johnson, 2011), this study is limited by a non-representative sample. As such, the results may not be generalizable. Since the women were invited to be involved, those with serious physical and mental health concerns may have declined given the longitudinal and intense nature of the research process.

While we recruited from rural and remote locations, only 2.4% of the final sample resided in remote areas. In rural/remote communities, women abused by intimate partners have unique issues with respect to disclosing abuse such that few resources are available (the venues through which we recruited in the current study). Privacy concerns are another issue, in that the confidentiality provided to women in larger centres may be at risk in remote centres where, for example, women may be related to service providers (Zorn, Wuerch, Faller & Hampton 2017).

The study is also limited in that the physical and mental health conditions and disabilities were based on the women's self-report rather than formal diagnoses. However, within the disability community self-identification is viewed as the most accurate measure of disability (Owen, Hiebert-Murphy & Ristock, 2018). Some key variables such as child abuse and disability status could have been measured more comprehensively with standardized measures designed for these. However, the research protocol was already long and arduous to complete. Additional measures would have significantly burdened the women respondents.

A further weakness is that we lacked the means to assess possible risk and protective factors uniquely associated with Indigenous vs. non-Indigenous women. Although sensitized to the possible implications of the different histories and experiences of current oppression between these two groups of women, we were unable to analyze how these differences may have contributed to their respective resilience. Clearly, this should be a priority in future research.

Nonetheless, that so many women with IPV histories were willing to take part in the Healing Journey provides an important portrait of their lives. A strength was recruiting a large number of women from Indigenous backgrounds. Although included in national studies such as the Statistic Canada's GSS, Indigenous women are not sufficiently represented in other IPV research. A second strength was using standardized measures of mental health functioning as this

clarified that, although women self-reported depression, other mental health symptoms and PTSD symptoms, on average none were in the clinical ranges.

Future analyses of data from the Healing Journey study will examine how the women are faring over time, focusing on the subsequent waves of the project. In addition, since several authors (Bent-Goodley, 2007; Lacey et al., 2013) have posited that cultural background can impede access to services, it would be instructive to examine with what services the Indigenous women connected, how useful they considered the resources, whether they were seen as culturally appropriate or not, and whether that made a difference.

Conclusion

This research highlights the experiences of both Indigenous and non-Indigenous women abused by partners, clarifying the complex and multi-faceted nature of IPV and its associated difficulties. Much research had focused on the negative consequences and traumas for women abused by partners. Such research is necessary, but risks implying that women affected by IPV commonly suffer from debilitating, long-term mental health conditions, thus remaining blind to their coping abilities and strengths. The results suggest not assuming that abused women, whether Indigenous or non-Indigenous, suffer clinically significant long-term mental health issues. Finding ways to support women's strengths and acknowledging their resilience is critical in both intervening clinically and conducting research (Anderson, Renner, & Danis, 2012).

It further suggests the need to assess physical health, disability, and child abuse history. Counsellors must take a holistic and ecological view of these women's lives and be prepared to assist them with both their basic and emotional needs, whether stemming from child abuse, racial discrimination, IPV, health problems or disabilities. While the unique history and structural inequities faced by Indigenous women are essential to both understand and acknowledge in

advocacy or clinical practice, when provided with support, both Indigenous and non-Indigenous women's strengths and determination to better their lives typically emerge.

References

Abel, E. (2000). Psychosocial treatment for battered women: A review of empirical research.

Research on Social Work Practice, 10(1), 55-77. doi:10.1177/15527581-00010001-07

Anderson, B., Kubik, W., & Hampton, M. (2010). *Torn from our midst: Voices of grief, healing and action from the Missing Indigenous Women Conference, 2008*. Regina SK: Canadian Plains Research Centre.

Anderson, K. M., Renner, L. M., & Danis, F. S. (2012). Recovery: Resilience and growth in the aftermath of domestic violence. *Violence Against Women, 18*(11), 1279-1299.

doi:10.1177/1077801212470543

Andresen, E. M., Malmgren, J. A., Carter, W. B., & Patrick, D. L. (1994). Screening for depression in well older adults: Evaluation of a short form of the CES-D. *American Journal of Preventive Medicine, 10*(2), 77-84.

Andrews, F., & Withey, S. (1976). *Social indicators of well-being: American's perceptions of life quality*. New York, NY: Plenum Press.

Baladerian, N. J. (2009). Domestic violence and individuals with disabilities: Reflections on research and practice. *Journal of Aggression, Maltreatment & Trauma, 18*(2), 153-161.

doi:10.1080/10926770802675601

Ballan, M. S. & Fryer, M. (2017). Trauma-informed social work practice with women with disabilities: Working with survivors of intimate partner violence. *Advances in Social Work, 18*(1), 131-144. doi:10.18060/21308

doi:10.18060/21308

Ballan, M. S., Burke Freyer, M., Marti, C. N., Perkel, J., Webb, J. A., & Romanelli, M. (2014).

- Looking beyond prevalence: A demographic profile of survivors of intimate partner violence with disabilities. *Journal of Interpersonal Violence*, 29(17), 3167-3179.
doi:10.1177/0886260514534776
- Becker, K. D., Stuewig, J., & McCloskey, L. A. (2010). Traumatic stress symptoms of women exposed to different forms of childhood victimization and intimate partner violence. *Journal of Interpersonal Violence*, 25(9), 1699-1715. doi:10.1177/0886260509354578
- Bent-Goodley, T. B. (2007). Health disparities and violence against women: Why and how cultural and societal influences matter. *Trauma, Violence, & Abuse*, 8, 90-104.
doi:10.1177/152483007301160
- Björgvinsson, T., Kertz, S. J., Bigda-Peyton, J. S., McCoy, K. L., & Aderka, I. M. (2013). Psychometric properties of the CES-D-10 in a psychiatric sample. *Assessment*, 20(4), 429-436. doi:10.1177/1073191113481998
- Blanchard, E. B., Jones-Alexander, J., Buckley, T. C., & Forneris, C. A. (1996). Psychometric properties of the PTSD checklist (PCL). *Behaviour Research and Therapy*, 34(8), 669-673. doi:10.1016/0005-7967(96)00033-2
- Bourassa, C., Blind, M., Dietrich, D., & Oleson, E. (2015). Understanding the intergenerational effects of colonization: Aboriginal women with neurological conditions - Their reality and resilience. *International Journal of Indigenous Health*, 10(2), 3-20.
- Breiding, M. J., & Armour, B. S. (2015). The association between disability and intimate partner violence in the United States. *Annals of Epidemiology*, 25(6), 455-457.
doi:10.1016/j.annepidem.2015.03.017
- Brennan, S. (2011). Violent victimization of Aboriginal women in the Canadian provinces, 2009. *Juristat*. Retrieved from <http://www.statcan.gc.ca/pub/85-002-x/2011001/article/11415->

[eng.pdf](#)

- Brownridge, D. A. (2006). Partner violence against women with disabilities: Prevalence, risk, and explanations. *Violence Against Women, 12*(9), 805-822.
doi:10.1177/1077801206292681
- Brownridge, D. A. (2008). Understanding the elevated risk of partner violence against Aboriginal women: A comparison of two nationally representative surveys of Canada. *Journal of Family Violence, 23*(5), 353-367. doi:10.1007/s10896-008-9160-0
- Brownridge, D. A., Chan, K. L., Hiebert-Murphy, D., Ristock, J., Tiwari, A., Leung, W. C., & Santos, S. C. (2008). The elevated risk for non-lethal post-separation violence in Canada: A comparison of separated, divorced, and married women. *Journal of Interpersonal Violence, 23*(1), 117-135. doi:10.1177/0886260507307914
- Brownridge, D. A., Taillieu, T., Afifi, T., Chan, K. L., Emery, C., Lavoie, J., & Elgar, F. (2016). Child maltreatment and intimate partner violence among Indigenous and non-Indigenous Canadians. *Journal of Family Violence*. doi:10.1007/s10896-016-9880-5
- Burnette, C. E. (2015). Disentangling Indigenous women's experiences with intimate partner violence in the United States. *Critical Social Work, 16*(1), 2-20.
- Burnette, C. E., & Figley, C. R. (2017). Historical oppression, resilience, and transcendence: Can a holistic framework help explain violence experienced by indigenous people? *Social Work, 62*(1), 37-44. doi:10.1093/sw/sww065
- Burnett, C., Ford-Gilboe, M., Berman, H., Wathen, N., & Ward-Griffin, C. (2016). The day-to-day reality of delivering shelter services to women exposed to intimate partner violence in the context of system and policy demands. *Journal of Social Service Research, 42*(4), 516-532. Retrieved from doi:10.1080/01488376.2016.1153562

- Clemmons, J. C., Walsh, K., DiLillo, D., & Messman-Moore, T. L. (2007). Unique and combined contributions of multiple child abuse types and abuse severity to adult trauma symptomatology. *Child Maltreatment, 12*(2), 172-181. doi:10.1177/1077559506298248
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cohen, M. M., Forte, T., DuMont, J., Hyman, I., & Roman, S. (2005). Intimate partner violence among Canadian women with activity limitations. *Journal of Epidemiology & Community Health, 59*(10), 834-839. doi:10.1136/jech.2004.022467
- Coker, A. L., Weston, R., Creson, D. L., Justice, B., & Blakeney, P. (2005). PTSD symptoms among men and women survivors of intimate partner violence: The role of risk and protective factors. *Violence and Victims, 20*(6), 625-643.
- Cole, E. R. (2009). Intersectionality and research in psychology. *American Psychologist, 64*(3), 170-180. doi:10.1037/a014564
- Curry, M. A., Renker, P., Robinson-Whelen, S., Hughes, R. B., Swank, B., Oshwald, M., & Powers, L. E. (2011). Facilitators and barriers to disclosing abuse among women with disabilities. *Violence and Victims, 26*(4), 430-444. doi:10.1891/0886-6708.26.4.430
- DeRiviere, L. (2014). *The Healing Journey: Intimate partner abuse and its implications in the labour market*. Halifax, NS: Fernwood Press and RESOLVE.
- Derogatis, L. R., & Cleary, P. A. (1977). Confirmation of the dimensional structure of the SCL-90: A study in construct validation. *Journal of Clinical Psychology, 33*(4), 981-. doi: 10.1002/1097-4679(197710)33:4<981::AID-JCLP2270330412>3.0.CO;2-0
- Dowling Evans, D., & Shapiro, S. E. (2011). Intimate partner violence, depression, and substance abuse in women presenting to emergency departments for care. *Advanced*

- Emergency Nursing Journal*, 33(2), 109-113. doi:10.1097/TME.0b013e318217e47b
- Du Mont, J., & Forte, T. (2014). Intimate partner violence among women with mental health-related activity limitations: A Canadian population based study. *BMC Public Health*, 14, 51. doi:10.1186/1471-2458-14-51
- Du Mont, J., Kosa, D., Macdonald, S., Benoit, A., & Forte, T. (2017). A comparison of Indigenous and non-Indigenous survivors of sexual assault and their receipt of and satisfaction with specialized health care services. *PLoS Medicine*, 12(11), 1-15. doi:10.1371/journal.pone.0188253
- Dutton, M. A., Green, B. L., Kaltman, S. I., Roesch, D. M., Zeffiro, T. A., & Krause, E. D. (2005). Patterns of intimate partner violence: Correlates and outcomes. *Violence and Victims*, 20(5), 483-497. doi:10.1891/vivi.2005.20.5.483
- Elias, B., Mignone, J., Hall, M., Hong, S. P., Hart, L., & Sareen, J. (2012). Trauma and suicide behaviour histories among a Canadian Indigenous population: An empirical exploration of the potential role of Canada's residential school system. *Social Science & Medicine*, 74, 1560e1569. doi:10.1016/j.socscimed.2012.01.026
- Evans-Campbell, T., Lindhorst, T., Huang, B., & Walter, K. L. (2006). Interpersonal violence in the lives of American Indian and Alaska Native women: Implications for health, mental health, and help-seeking. *American Journal of Public Health*, 96(8), 1416-1422.
- Ferrari, G., Agnew-Davies, R., Bailey, J., Howard, L., Howarth, E., Peters, T. J., Sardinha, L., & Feder, G. (2014). Domestic violence and mental health: A cross-sectional survey of women seeking help from domestic violence support services. *Global Health Action*, 7. doi:10.3402/gha.v7.25519
- Field, A. (2009). *Discovering statistics using SPSS* (Third edition). Los Angeles, CA: Sage.

- Firestone, M., Tyndall, M., & Fischer, B. (2015). Substance use and related harms among Aboriginal people in Canada: A comprehensive review. *Journal of Health Care for the Poor and Underserved, 26*, 1110-1131. doi:10.1353/hpu.2015.0108
- Fleury, R. E., Sullivan, C. M., & Bybee, D. I. (2000). When ending the relationship does not end the violence: Women's experiences of violence by former partners. *Violence Against Women, 6*(12), 1363 -1383. doi:10.1177/10778010022183695
- Hahn, J. W., McCormick, M. C., Silverman, J. G., Robinson, E. B., & Koenen, K. C. (2014). Examining the impact of disability status on intimate partner violence victimization in a population sample. *Journal of Interpersonal Violence, 29*(17), 3063-3085. doi:10.1177/0886260514534527
- Hegarty, K. & Valpied, J. (2013). *Composite Abuse Scale manual*. Melbourne, AU: Author.
- Heise, L. L. (1998). Violence against women: An integrated ecological framework. *Violence Against Women, 4*(3), 262-290. doi:10.1177/1077801298004003002
- Heise, L. L. (2011). *What works to prevent partner violence? An evidence overview*. Strive Research Consortium, London, UK. Retrieved from <http://strive.lshtm.ac.uk/system/files/attachments/What%20works%20to%20prevent%20partner%20violence.pdf>
- Jacobson, N. S., Follette, W. C., & Revenstorf, D. (1984). Psychotherapy outcome research: Methods for reporting variability and evaluating clinical significance. *Behavior Therapy, 17*(4), 308-311. doi:10.1016/S0005-7894(84)80002-7
- Johnson, H. (2006). *Measuring violence against women: Statistical trends 2006* (Catalogue no. 85-570-XIE). Ottawa, ON: Minister of Industry. Retrieved from <http://www.statcan.gc.ca/pub/85-570-x/85-570-x2006001-eng.htm>

Johnson, M. P. (2011). Gender and types of intimate partner violence: A response to an anti-feminist literature review. *Aggression and Violent Behavior, 16*(4), 289-296.

doi:10.1016/j.avb.2011.04.006

Kubik, W., Bourassa, C., & Hampton, M. (2009). Stolen sisters, second class citizens, poor health: The legacy of colonization in Canada. *Humanity and Society, 33*, 18-34.

doi:10.1177/016059760903300103

Lacey, K. K., McPherson, M. D., Samuel, P. S., Sears, K. P., & Head, D. (2013). The impact of different types of intimate partner abuse on the mental and physical health of women in different ethnic groups. *Journal of Interpersonal Violence, 28*(2), 359-385.

doi:10.1177/0886260512454743

Lavallee, L. F., & Poole, J. M. (2010). Beyond recovery: Colonization, health and healing for Indigenous people in Canada. *International journal of mental health and addiction, 8*(2), 271–281. doi:10.1007/s11469-009-9239-8

Müller, J. M., Postert, C., Beyer, T., Furniss, T., & Achtergarde, S. (2010). Comparison of eleven short versions of the Symptom Checklist 90-Revised (SCL-90-R) for use in the assessment of general psychopathology. *Journal of Psychopathology and Behavioral Assessment, 32*(2), 246-254. doi:10.1007/s10862-009-9141-5

Nicolaidis, C., McFarland, B., Curry, M., & Gerrity, M. (2009). Differences in physical and mental health symptoms and mental health utilization associated with intimate partner violence versus childhood abuse. *Psychosomatics, 50*(4), 340-346.

doi:10.1176/appi.psy.50.4.340

Owen, M., Hiebert-Murphy, D., & Ristock, J. (Eds.) (2018). *Not a new problem: Violence in the lives of women with disabilities*. Winnipeg, MB: Fernwood Press.

- Nguyen, T., Attkisson, C. D., & Stegner, B. L. (1983). Assessment of patient satisfaction: Development and refinement of a Service Evaluation Questionnaire. *Evaluation and Program Planning, 6*(3), 299-313. doi:10.1016/0149-7189(83)90010-1
- Perez, S. & Johnson, D. M. (2008). PTSD compromises battered women's future safety. *Journal of Interpersonal Violence, 23*(5), 635-651. doi:10.1177/0886260507313528
- Pederson, J. S., Malcoe, L. H., & Pulkingham, J. (2013). Explaining Aboriginal/Non-Aboriginal inequalities in postseparation violence against Canadian women: Application of a structural violence approach. *Violence Against Women, 19*(8), 1034 -1058. doi:10.1177/1077801213499245
- Plichta, S. B. (2004). Intimate partner violence and physical health consequences: Policy and practice implications. *Journal of Interpersonal Violence, 19*(11), 1296-1323. doi:10.1177/0886260504269685
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385-401. doi:10.1177/014662167700100306
- Rea, L. M., & Parker, R. A. (2002). *Designing and conducting survey research*. San Francisco, CA: Jossey-Boss.
- Roy, A., Noormohamed, R., Henderson, R. I., & Thurston, W. E. (2015). Promising healing practices for interventions addressing intergenerational trauma among Aboriginal youth: A scoping review. *First Peoples Child & Family Review, 10*(2), 62-81.
- Söchting, I., Corrado, R., Cohen, I. M., Ley, R. G., & Brasfield, C. (2007). Traumatic pasts in Canadian Aboriginal people: Further support for a complex trauma conceptualization? *BC Medical Journal, 49*(6), 320-326.

- Spiwak, R. & Brownridge, D. A. (2005). Separated women's risk for violence: An analysis of the Canadian situation. *Journal of Divorce & Remarriage*, 43(3-4), 105-117.
doi:10.1300/J087v43n03_06
- Stark, E. (2007). *Coercive control: How men entrap women in personal life*. New York, NY: Oxford University Press.
- Statistics Canada (2011). *Family violence in Canada: A statistical profile*. (Catalogue no. 85-224-X). Ottawa, ON: Statistics Canada. Retrieved from <http://www.statcan.gc.ca/pub/85-224-x/85-224-x2010000-eng.pdf>
- Statistics Canada (2016). *Family violence in Canada: A statistical profile, 2014*. (Catalogue no. 85-002-X). Ottawa, ON: Minister of Industry. Retrieved from <https://www150.statcan.gc.ca/n1/pub/85-002-x/2016001/article/14303-eng.htm>
- Statistics Canada (2017). *Women in Canada: A gender-based statistical report*. (Catalogue no. 89-503-X). Ottawa, ON: Minister of Industry. Retrieved from <https://www150.statcan.gc.ca/n1/en/pub/89-503-x/2015001/article/14695-eng.pdf?st=omK8zW7w>
- Sullivan, C. B., & Bybee, D. (1999). Reducing violence using community-based advocacy for women with abusive partners. *Journal of Consulting and Clinical Psychology*, 67(1), 43-53. doi:10.1037/0022-006X.67.1.43
- Truth and Reconciliation Committee of Canada (2015). *Honouring the truth, reconciling for the future: Summary of the final report of the Truth and Reconciliation Commission of Canada*. Retrieved from http://nctr.ca/assets/reports/FinalReports/Executive_Summary_English_Web.pdf
- Tutty, L. M. (2015). Addressing the safety and trauma issues of abused women: A cross-Canada

- study of YWCA shelters. *Journal of International Women's Studies*, 16(3), 101-116.
Available at: <http://vc.bridgew.edu/jiws/vol16/iss3/8>.
- Walker, L. (1991). Post-traumatic stress disorder in women: Diagnosis and treatment of battered woman syndrome. *Psychotherapy: Theory/Research/Practice/Training*, 28(1), 21-29.
- Widom, C. S., Czaja, S. J., & Dutton, M. A. (2014). Child abuse and neglect and intimate partner violence victimization and perpetration: A prospective study. *Child Abuse & Neglect*, 38(4), 650-663. doi:10.1016/j.chiabu.2013.11.004
- World Health Organization and The World Bank (2011). *World report on disability*. Geneva, SW: Author. Retrieved from
http://www.who.int/disabilities/world_report/2011/report.pdf
- Wuest, J., Ford-Gilboe, M., Merritt-Gray, M., Wilk, P., Campbell, J. C., Lent, B., Varcoe, C., & Smye, V. (2010). Pathways of chronic pain in survivors of intimate partner violence. *Journal of Women's Health*, 19(9), 1665-1674. doi:10.1089=jwh.2009.1856
- Yoshida, K., Du Mont, J., Odette, F., & Lysy, D. (2011). Factors associated with physical and sexual violence among Canadian women living with physical disabilities. *Health Care for Women International*, 32(8), 762-775. doi:10.1080/07399332.2011.555826
- Zorn, K. Z., Wuerch, M. A., Faller, N., & Hampton, M. R. (2017). Perspectives on regional differences and intimate partner violence in Canada: A qualitative examination. *Journal of Family Violence*, 32, 633-644. doi:10.1007/s10896-017-9911-x

Table 1

Demographic Comparisons by Indigenous/non-Indigenous¹

Variable	Categories	Indigenous (<i>N</i> = 292)	Non-Indigenous (<i>N</i> = 295)	Totals	Sign.	Effect size
Age in years		35.1 (17-80) (<i>SD</i> = 10.5)	38.2 (18-80) (<i>SD</i> = 11.3)		$t = 3.6$; $p < .000^{***}$	$r = .15$
Total yearly income (Past year)		\$18,504 (0- \$200,000) (<i>SD</i> = 21,867)	\$26,256 (0- \$235,000) (<i>SD</i> = 27,569)		$t = 3.6$; $p < .000^{***}$	$r = .15$
Partner Status	Married/common-law	42 (14.4%)	34 (11.6%)	76 (13%)	$\chi^2 = 18.5$; $p = .001^{***}$	Cramer's <i>V</i> = .18
	Divorced/separated	165 (56.5%)	210 (71.4%)	375 (64%)		
	Boyfriend/girlfriend	24 (8.2%)*	8 (2.7%)*	32 (5.5%)		
	Ex-boyfriend/girl-friend	59 (20.2%)	39 (13.3%)	98 (16.6%)		
	Partner deceased	2 (0.7%)	3 (1%)	5 (0.9%)		
Current partner relationship (short)	No longer together	226 (77.4%)	252 (85.7%)	478 (81.6%)	$\chi^2 = 6.2$; $p = .01^*$	Cramer's <i>V</i> = .11
	Together	66 (22.6%)*	42 (14.3%)*	108 (18.4%)		
Partner/Ex-partner	Indigenous	179 (62.2%)	67 (23.1%)	247 (42.6%)	$\chi^2 = 94$; $p < .000^{***}$	Cramer's <i>V</i> = .40
Racial Group	White	102 (35.4%)	191 (65.9%)	293 (50.7%)		
	Visible Minority	7 (2.4%)	32 (11%)	39 (6.7%)		
Sexual Orientation	Heterosexual	263 (91.6%)	278 (94.9%)	541 (93.3%)	$\chi^2 = 8.9$; $p = .03^*$	Cramer's <i>V</i> = .12
	Bisexual	11 (3.8%)	12 (4.1%)	23 (4.0%)		
	Lesbian	5 (1.7%)	3 (1%)	8 (1.4%)		
	Two-spirited	8 (2.8%)*	0 (0%)*	8 (1.4%)		
Children?	Yes	263 (90.1%)	266 (90.5%)	529 (90.3%)	$\chi^2 = 0.4$; $p = .97$ n.s.	
	No	29 (9.9%)	28 (9.5%)	57 (9.7%)		
Age of oldest child	Under 18 years	186 (71%)	179 (67.8%)	365 (69.4%)	$\chi^2 = 0.6$; $p = .43$ n.s.	
	Adult	76 (29%)	85 (32.2%)	161 (30.6%)		
Highest Education	Not completed HS	154 (52.7%)**	83 (28.3%)**	237 (40.5%)	$\chi^2 = 42.3$ $p = .000^{***}$	Cramer's <i>V</i> = .27
	Complete HS or GED	61 (20.9%)	65 (22.2%)	126 (21.5%)		
	Post sec-tech	34 (11.6%)*	66 (22.5%)*	100 (17.0%)		
	Post sec-univ	43 (14.7%)*	79 (27.0%)*	122 (20.9%)		

¹ Stars represent significant differences between categories based on standardized residuals (contact the first author for these statistics).

Variable	Categories	Indigenous (<i>N</i> = 292)	Non-Indigenous (<i>N</i> = 295)	Totals	Sign.	Effect size
Currently working	Full-time	41 (14.2%)*	90 (31.3%)*	131 (22.7%)	$\chi^2 = 24.7$; $p < .000^{***}$	Cramer's <i>V</i> = .21
	Part-time/Casual	50 (17.4%)	48 (16.7%)	98 (17%)		
	Not working	197 (68.4%)	150 (52.1%)	347 (60.2%)		
Stayed VAW shelter	Yes	186 (63.9%)	180 (61.2%)	366 (62.6%)	$\chi^2 = 0.3$; $p = .50$ n.s.	
	No	105 (36.1%)	114 (38.8%)	219 (37.4%)		
Location ²	Rural (less than 999)	7 (2.4%)	7 (2.4%)	14 (2.4%)	$\chi^2 = 1.5$; $p = .69$ n.s.	
	Small (1,000-29,999)	37 (12.7%)	32 (10.9%)	69 (11.8%)		
	Medium (30K-99,999)	41 (14%)	34 (11.6%)	75 (12.8%)		
	Large (100,000+)	207 (70.9%)	221 (75.2%)	428 (73%)		
Where lived as child?	Nuclear family	163 (56%)*	231 (78.6%)*	394 (67.4%)	$\chi^2 = 38.4$; $p < .000^{***}$	Cramer's <i>V</i> = .26
	Relative	25 (8.6%)*	9 (3.1%)*	34 (5.8%)		
	Any foster care/CJ	85 (29.2%)*	48 (16.3%)*	133 (22.7%)		
	Adopted	10 (3.4%)	6 (2%)	16 (2.7%)		
	Any residential school	8 (2.7%)*	0 (0%)*	8 (1.4%)		
Summary: Lived as a child?	Biological/relatives	188 (64.6%)	240 (81.6%)	428 (73.2%)	$\chi^2 = 21.6$; $p < .000^{***}$	Cramer's <i>V</i> = .19
	Child welfare/adoption	103 (34.5%)*	54 (18.4%)*	157 (26.8%)		
Child abuse history	No abuse	41 (14.1%)*	79 (26.9%)*	120 (20.5%)	$\chi^2 = 17.5$; $p < .000^{***}$	Cramer's <i>V</i> = .17
	Any child sexual abuse	180 (61.9%)	139 (47.3%)*	319 (54.5%)		
	Other child abuse	70 (24.1%)	76 (25.9%)	146 (25.0%)		
Physical or mental illness	Yes	180 (62.3%)	191 (65.2%)	371 (63.7%)	$\chi^2 = .41$; $p = .52$ n.s.	
	No	109 (37.7%)	102 (34.8%)	211 (36.3%)		
Disability	Yes	122 (42.2%)	124 (42.3%)	246 (42.3%)	$\chi^2 = 0.0$; $p = 1.00$ n.s.	
	No	167 (57.8%)	169 (57.7%)	336 (57.7%)		
Type of Disability	No disability	167 (57.8)	168 (57.3)	335 (57.6%)	$\chi^2 = 3.6$; $p = .31$ n.s.	
	Physical	41 (14.2%)	35 (11.9%)	76 (13.1%)		
	Mental health	33 (11.4%)	26 (8.9%)	59 (10.1%)		
	Physical + mental health	48 (16.6%)	64 (21.8%)	112 (19.2%)		
Disability from abuse?	No/unsure	53 (29.6%)	67 (35.4%)	120 (32.6%)	$\chi^2 = 6.8$; $p = .08$ n.s.	
	Childhood abuse	11 (6.1%)	13 (6.9%)	24 (6.5%)		
	Partner abuse	47 (26.3%)	62 (32.3%)	108 (29.3%)		
	Both child & partner	68 (28%)	48 (29.4%)	116 (31.5%)		

² Population centres defined at: <http://www.statcan.gc.ca/eng/subjects/standard/sgc/notice/sgc-06>

Table 2: Scores on Abuse and Mental Health Indices by Indigenous/non-Indigenous

Scale	Indigenous (N=292)	Non-indigenous (N=295)	t-test	Effect size
CAS Severe Combined	7.2 (<i>SD</i> = 6.7)	6.8 (<i>SD</i> = 6.6)	0.85; <i>p</i> = .39 n.s.	
CAS Emotional Abuse	26.2 (<i>SD</i> = 13.8)	29.3 (<i>SD</i> = 14.1)	2.6; <i>p</i> < .009**	<i>r</i> = .10
CAS Physical Abuse	13.6 (<i>SD</i> = 8.1)	11.1 (<i>SD</i> = 8.4)	3.6; <i>p</i> < .000***	<i>r</i> = .15
CAS Harassment	7.8 (<i>SD</i> = 5.1)	7.6 (<i>SD</i> = 5.1)	0.45; <i>p</i> = .66 n.s.	
CAS Total Score	54.2 (<i>SD</i> = 28.4)	54.3 (<i>SD</i> = 27.6)	0.4; <i>p</i> = .97 n.s.	
SCL-10 Total Score	13.5 (<i>SD</i> = 9.2)	12.2 (<i>SD</i> = 8.4)	1.6; <i>p</i> = .10 n.s.	
CES-D Total score	12.2 (<i>SD</i> = 6.5)	11.9 (<i>SD</i> = 6.2)	0.5; <i>p</i> = .62 n.s.	
PTSD Checklist	27.4 (<i>SD</i> = 15)	26.2 (<i>SD</i> = 13.9)	1.1; <i>p</i> = .91 n.s.	
Quality of Life	32.3 (<i>SD</i> = 9.9)	31.5 (<i>SD</i> = 10.1)	0.9; <i>p</i> = .34 n.s.	

Table 3: MANCOVA of Mental Health/Well-Being Scores by IPV, racial background, disability and child abuse

Source	Dependent Variable	Mean Square	<i>df</i>	<i>F</i> -test	<i>p</i> -value	Partial μ^2
CAS Total (Covariate)	SCL Total	1215.72	1	16.81	.000	.034
	CES-D Total	304.76	1	7.76	.006	.016
	PTSD checklist Total	7691.26	1	43.69	.000	.083
	Quality of Life	70.55	1	0.79	.375	.002
Racial group (I/non-I)	SCL Total	0.73	1	0.01	.920	.000
	CES-D Total	5.17	1	0.13	.717	.000
	PTSD checklist Total	102.52	1	0.58	.446	.001
	Quality of Life	62.19	1	0.70	.405	.001
Disability (Y/N)	SCL Total	883.37	1	12.21	.001	.025
	CES-D Total	360.28	1	9.17	.003	.019
	PTSD checklist Total	2624.89	1	14.91	.000	.030
	Quality of Life	1655.17	1	18.51	.000	.037
Child abuse (Y/N)	SCL Total	13.37	1	0.19	.667	.000
	CES-D Total	10.77	1	0.27	.601	.001
	PTSD checklist Total	104.23	1	0.59	.442	.001
	Quality of Life	85.31	1	0.95	.329	.002
Race*disability	SCL Total	3.54	1	0.05	.825	.000
	CES-D Total	22.11	1	0.56	.453	.001
	PTSD checklist Total	36.20	1	0.21	.650	.000
	Quality of Life	125.13	1	1.4	.237	.003
Race*Child abuse	SCL Total	36.52	1	0.51	.478	.001
	CES-D Total	0.30	1	0.01	.930	.000
	PTSD checklist Total	81.15	1	0.46	.498	.001
	Quality of Life	14.86	1	0.17	.684	.000
Disability * Child abuse	SCL Total	27.17	1	0.38	.540	.001
	CES-D Total	12.59	1	0.32	.572	.001
	PTSD checklist Total	173.22	1	0.98	.322	.002
	Quality of Life	0.65	1	0.01	.932	.000
Race*Disability* Child abuse	SCL Total	2.60	1	0.04	.850	.000
	CES-D Total	0.01	1	0.00	.988	.000
	PTSD checklist Total	134.97	1	0.77	.382	.002
	Quality of Life	1.59	1	0.02	.894	.000