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Understanding experiences of non-physical maltreatment in childhood in Canada: What is the relationship with suicidal ideation and mental health disorders?

by Danielle Bader and Kristyn Frank

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ABSTRACT

Background

Physical and sexual childhood abuse are associated with suicidal ideation and mental health disorders. However, less is known about non-physical types of maltreatment. This study examined associations between non-physical types of child maltreatment (e.g., emotional abuse, interpersonal aggression, exposure to physical intimate partner violence, emotional and physical neglect) and suicidal ideation, and mental health disorders.

Data and methods

Data from the 2018 Survey of Safety in Public and Private Spaces were used to estimate the proportion of individuals 15 years and older in Canada who experienced non-physical maltreatment during childhood. Multivariable regression analyses were used to examine associations between five types of non-physical child maltreatment and suicidal ideation, and mental health disorders.

Results

Overall, interpersonal aggression was the most common (45.7%), followed by emotional abuse (40.4%) and emotional neglect (20.0%). Individuals who experienced any type of non-physical maltreatment in childhood had a higher probability of lifetime suicidal ideation than those who never experienced the maltreatment examined. Mood disorder diagnoses were more likely among those who experienced emotional abuse, interpersonal aggression, and emotional neglect than among those who never experienced these types of maltreatment. Compared with those who never experienced the maltreatment examined, individuals who experienced emotional abuse, interpersonal aggression, emotional neglect, or physical neglect were more likely to be diagnosed with an anxiety disorder. Diagnoses of post-traumatic stress disorder were more likely among those who experienced emotional and physical neglect than among those who never experienced these types of maltreatment.

Interpretation

Non-physical child maltreatment is associated with suicidal ideation and mental health disorders. The findings highlight the importance of including non-physical types of child maltreatment on population-based surveys to differentiate associations with mental health outcomes to better align interventions and policies.

Keywords

Childhood maltreatment, emotional abuse, exposure to intimate partner violence, childhood neglect, mental health disorders, suicidal ideation

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What is already known on this subject?

- In 2018, 32.3% of individuals in Canada experienced only non-physical maltreatment, while 23.3% experienced both non-physical and physical maltreatment in childhood.
- Physical types of child maltreatment are associated with suicide behaviours (e.g., suicidal ideation, suicide plans and attempts) and mental health disorders.

What does this study add?

- This study provides new information about the proportion of individuals who experienced different subtypes of non-physical child maltreatment, specifically emotional abuse, interpersonal aggression, and emotional and physical neglect.
- The findings revealed that, among the Canadian population aged 15 years and older, suicidal ideation is associated with emotional abuse, interpersonal aggression, exposure to physical intimate partner violence, and emotional and physical neglect. Mood disorder diagnoses are associated with emotional abuse, interpersonal aggression, and emotional neglect. Anxiety disorders are associated with emotional abuse, interpersonal aggression, and emotional and physical neglect. Post-traumatic stress disorder is associated with experiencing emotional and physical neglect.

In Canada, all children have basic rights, including protection from physical and psychological violence, and sexual exploitation.¹ The most comprehensive estimate of child maltreatment in Canada, derived from the 2018 Survey of Safety in Public and Private Spaces (SSPPS), revealed the majority (59.7%) of the population experienced *at least* one type of maltreatment (e.g., physical, sexual, and emotional abuse; interpersonal aggression; exposure to physical intimate partner violence [IPV]; emotional and physical neglect) before age 15. Approximately one-third (32.3%) of individuals experienced only non-physical types of child maltreatment (e.g., emotional abuse, interpersonal aggression, exposure to physical IPV, emotional and physical neglect), while more than 2 in 10 experienced both non-physical and physical maltreatment.² These findings raise new questions about the mental health of individuals in Canada who experienced non-physical maltreatment in childhood.

Epidemiological studies indicate primarily physical types of child maltreatment (e.g., physical and sexual abuse are associated with suicide behaviours (e.g., suicidal ideation, suicide attempts).^{3,4,5,6,7} One Canadian population-based study found suicidal ideation was associated with experiencing any type of child abuse (e.g., physical abuse, sexual abuse, exposure to physical IPV), controlling for sociodemographic factors and mental health disorders (odds ratio [OR] 2.9; confidence interval [CI]: 2.5 to 3.3).³ Studies also consistently reveal associations between child maltreatment and mental health disorders, including mood disorders and generalized anxiety disorder.^{3,4,8,9,10} Specifically, there is some evidence that exposure to physical IPV in childhood is associated with mental health disorders.^{3,4} Mental health is a public health issue in Canada, and may be associated with childhood maltreatment.

Overall, Canadian studies that have documented associations between child maltreatment and mental health issues (e.g., suicide behaviours, mental health disorders) have largely focused on physical types of maltreatment, while less is known about the relationship with non-physical types of child maltreatment, specifically emotional abuse, and emotional and physical neglect. This is the first national population-based study in Canada to examine associations between emotional abuse, as well as emotional and physical neglect, and suicidal ideation and mental health disorders. In extreme cases, non-physical child maltreatment can lead to fatal injury.^{11,12,13,14}

The population health perspective (PHP) suggests the child's environment provides the context for maltreatment to occur.¹⁵ Drawing from the PHP, experiences of child maltreatment are attributable to determinants of health at the individual, family, community, and societal levels within a person's environment, as well as interactions between these factors.^{15,16} The PHP and prior findings revealing social determinants of child maltreatment informed what control variables to include in the statistical analyses for this study.

This study focused on individuals who experienced non-physical maltreatment during childhood, reported retrospectively. Drawing from the PHP, associations between non-physical types of childhood maltreatment, and lifetime suicidal ideation and long-term mental health disorders (e.g., mood disorders, anxiety disorders, post-traumatic stress disorder [PTSD]) were examined. This study answers the following research questions:

1. What proportion of the Canadian population experienced different types of non-physical childhood maltreatment?

2. Are individuals who experienced non-physical childhood maltreatment more likely to report suicidal ideation compared with those who did not experience the maltreatment examined?
3. Are individuals who experienced non-physical childhood maltreatment more likely to report mental health disorders compared with those who did not experience the maltreatment examined?

Methods

Data and sample

Data were analyzed from the 2018 Survey of Safety in Public and Private Spaces (SSPPS). The SSPPS is a general population survey that collects retrospective information about gender-based violence, including childhood physical, sexual, and emotional abuse, interpersonal aggression as well as emotional and physical neglect, experienced before age 15. Data were collected between April and December 2018, representing individuals aged 15 and older living in the 10 provinces and 3 territories in Canada, excluding institutionalized populations. The response rate was 43.1% for the provinces and 73.2% for the territories. The final analytical sample size was 40,660. For a description of the study sample, see Appendix A.

Primary measurements

Measures of mental health used as dependent variables included lifetime suicidal ideation, mood disorders, anxiety disorders, and PTSD. Suicidal ideation was assessed with a single dichotomous question that asked respondents whether they ever seriously contemplated suicide (0 = no, 1 = yes). Questions about chronic conditions lasting at least six months and diagnosed by a health professional included mood disorder, anxiety disorder, and PTSD diagnoses. Responses to questions about mental health disorder diagnoses were treated as binary (0 = no, 1 = yes, diagnosed with mental health disorder).

Different types of non-physical childhood maltreatment are the main independent variables of interest. Respondents were asked retrospective questions about experiences of non-physical maltreatment in childhood (i.e., before age 15), specifically emotional abuse, exposure to interpersonal aggression by a parent or caregiver, exposure to physical IPV, emotional neglect, and physical neglect. Emotional abuse captured individuals who experienced a parent or caregiver say things that hurt the respondent's feelings. Assessing interpersonal aggression was based on seeing or hearing a parent(s) or caregiver(s) say hurtful things to each other or another adult in the home, meaning exposure to emotional IPV, as well as non-physical violence in other types of familial and non-familial relationships, are included. The question about physical IPV was assessed based on seeing or hearing a parent(s) and/or step-parent, or guardian(s) hit each other or another adult. Assessing emotional neglect was based on individuals who felt unloved

and/or unwanted by a parent or caregiver. Finally, physical neglect captured the failure to take care of the respondent's basic needs, such as keeping them clean or providing food or clothing.

Responses to non-physical childhood maltreatment were measured using an ordinal scale representing the frequency of occurrence (i.e., never, 1 or 2 times, 3 to 5 times, 6 to 10 times, more than 10 times). Currently, there are no validated measures to determine cut-points for non-physical types of maltreatment. For the purposes of these analyses, non-physical types of childhood maltreatment were dichotomized into absence (coded 0) and presence or occurrence at least once (coded 1), because the responses do not follow an ordinal distribution (i.e., the relationship is non-linear). The responses drop off after the category for 1 or 2 times but increase for the category capturing more than 10 times for all types of non-physical child maltreatment (see Appendix B).

Covariates for regression models

To isolate the relationships between experiencing non-physical child maltreatment and suicidal ideation, and mental health disorders, the regression models control for determinants of health related to child maltreatment documented by prior studies. These include gender, sexual orientation, age, marital status, educational attainment, personal income in adulthood, region of birth, population groups, Indigenous identity, and disability status. Children often experience multiple types of maltreatment rather than a single type;^{2,17} therefore, it was important to also control for experiencing physical and/or sexual abuse in the logistic regression models. Results for models without the variable for experienced physical and/or sexual abuse (Model 1) and controlling for experienced physical and/or sexual abuse (Model 2) are presented. Physical abuse included three items: (1) slap you on the face, head or ears, or hit you with something hard to hurt you; (2) push, grab, shove or throw something at you to hurt you; and (3) kick, bite, punch, choke, burn you, or physically attack you in some way. Sexual abuse included two items: (1) forced you or attempted to force you into any unwanted sexual activity by threatening you, holding you down or hurting you in some way; and (2) touched you against your will in any sexual way, meaning anything from unwanted touching or grabbing, to kissing or fondling.

Statistical analyses

To account for the complex survey design, bootstrap weights were employed as a variance estimation technique. Additionally, sample weights for the 2018 SSPPS were applied so the estimates could be generalized to the Canadian population. Descriptive statistics were calculated for each type of non-physical maltreatment. Subsequently, multiple binary logistic regression models were estimated to examine associations between non-physical child maltreatment and lifetime suicidal ideation, and long-term mental health disorders separately.

Specifically, the dependent variables in these models measure suicidal ideation, mood disorders, anxiety disorders, and PTSD diagnoses. To ease interpretation, the logistic regression estimates were converted to predicted probabilities and plotted in graphical displays with their corresponding 95% CIs. Consistent with the approach used in previous epidemiological, medical, and health-related research,^{18,19,20} the CIs were used to determine whether there was a statistically significant difference in the estimates for the focal variables because they are more conservative and meaningful, compared with p-values.

Results

Proportion of individuals who experienced non-physical child maltreatment in Canada

The proportion of individuals who experienced at least one type of non-physical maltreatment in childhood was 58.0% (CI: 57.2 to 58.7). Overall, exposure to interpersonal aggression was the most common type of non-physical childhood maltreatment (45.7%; CI: 44.9 to 46.5), followed by emotional abuse (40.4%; CI: 39.6 to 41.2), emotional neglect (20.0%; CI: 19.3 to 20.7), exposure to physical IPV (12.3%; CI: 11.8 to 12.9), and physical neglect (4.0%; CI: 3.7 to 4.3).

Logistic regression analyses

All five types of non-physical child maltreatment were associated with increased odds of suicidal ideation and all mental health disorders examined, controlling for

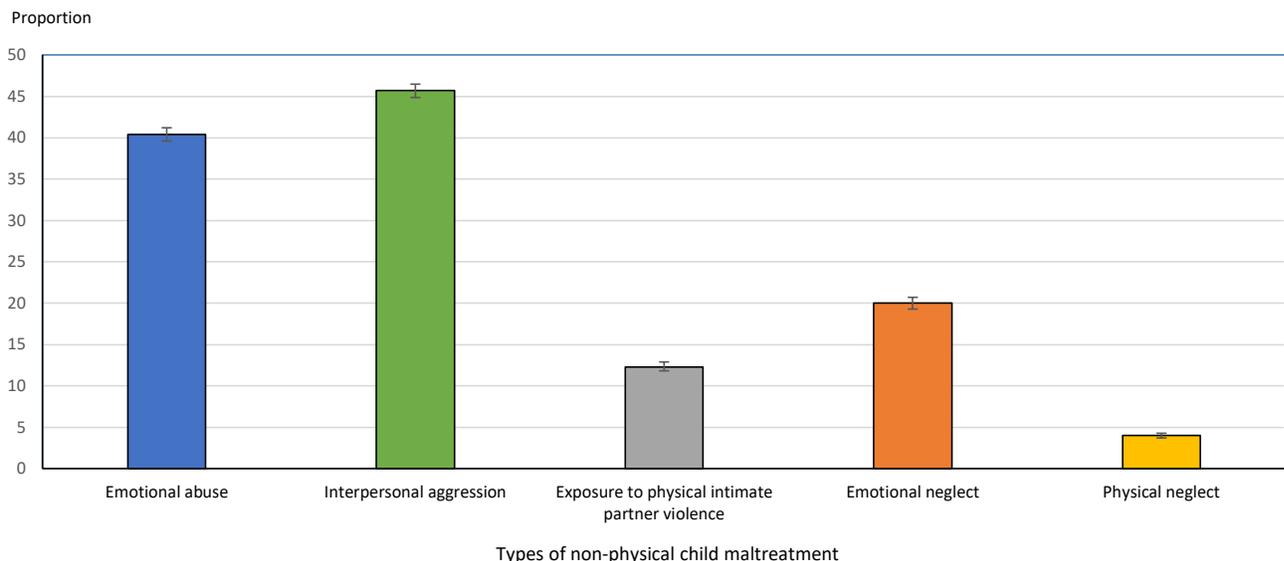
sociodemographic characteristics (reported as Model 1 in Table 1).

When physical and/or sexual abuse were added to the models (reported as Model 2 in Table 1 and Charts 2 to 5), some differences in the estimates were no longer observed. Additional analyses were conducted controlling for mental health disorders only for the models predicting suicidal ideation and ever experienced IPV since age 15 (lifetime) for all models. However, controlling for mental health disorders in the models predicting suicidal ideation and lifetime IPV for all models did not significantly change the predicted probabilities (data not shown).

The fully adjusted binary logistic regression estimates for the key independent variables converted into predicted probabilities are presented in graphical displays with their corresponding 95% CIs in Charts 2 to 5. The predicted probabilities were calculated holding the control variables constant at typical values. Because all the control variables are categorical, they were held constant at their proportions.

Chart 2 reveals individuals who experienced each type of non-physical maltreatment were more likely to experience suicidal ideation compared with those who did not experience the maltreatment examined. Specifically, the probability of suicidal ideation was higher for individuals who experienced emotional neglect (0.235; CI: 0.221 to 0.249) than for those who never experienced this type of maltreatment (0.131; CI: 0.125 to 0.138). The probability of suicidal ideation was also higher for those who experienced emotional abuse (0.195; CI: 0.185 to 0.205) compared with those who did not experience this type of maltreatment (0.122; CI: 0.114 to 0.131).

Chart 1
Proportion of individuals 15 years and older who experienced non-physical maltreatment in childhood in Canada, 2018



Note: Data are based on retrospective reporting.
Source: Survey of Safety in Public and Private Spaces, 2018.

Additionally, the predicted probabilities decreased from Model 1 to Model 2, suggesting the co-occurrence of multiple types of child maltreatment is important for understanding associations between suicidal ideation and non-physical childhood maltreatment (see Appendix C).

The probability of a mood disorder diagnosis was higher for individuals who experienced emotional abuse (0.120; CI: 0.113 to 0.127) compared with those who did not experience this type

of child maltreatment (0.083; CI: 0.076 to 0.090). The probability of a mood disorder diagnosis was also higher for individuals exposed to interpersonal aggression (0.112; CI: 0.106 to 0.119) compared with those who never experienced this type of maltreatment (0.089; CI: 0.082 to 0.096). Finally, the probability of a mood disorder diagnosis was higher for individuals who experienced emotional neglect (0.135; CI: 0.124 to 0.145) compared with those who never did (0.089; CI: 0.083 to 0.095).

Table 1
Binary logit models predicting the likelihood of suicidal ideation and mental health disorders among individuals 15 years and older by type of non-physical childhood maltreatment experienced

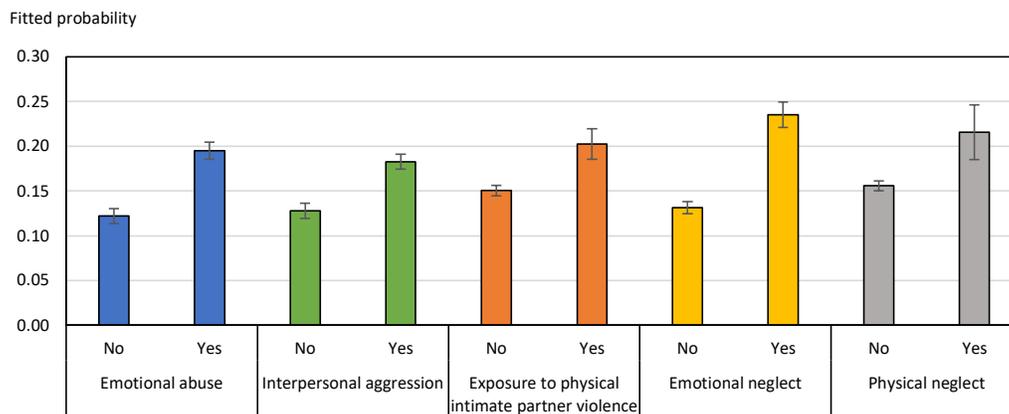
	Emotional abuse			Interpersonal aggression			Exposure to physical intimate partner violence			Emotional neglect			Physical neglect		
	Adjusted odds ratio	95% confidence interval from to		Adjusted odds ratio	95% confidence interval from to		Adjusted odds ratio	95% confidence interval from to		Adjusted odds ratio	95% confidence interval from to		Adjusted odds ratio	95% confidence interval from to	
Mental health disorder															
Suicidal thoughts															
Model 1	2.85 [‡]	2.56	3.17	2.43 [‡]	2.19	2.71	2.59 [‡]	2.28	2.94	3.51 [‡]	3.16	3.90	2.85 [‡]	2.28	3.55
Model 2	1.93 [‡]	1.70	2.18	1.65 [‡]	1.47	1.86	1.55 [‡]	1.35	1.79	2.32 [‡]	2.05	2.62	1.63 [‡]	1.29	2.06
Mood disorder															
Model 1	2.05 [‡]	1.81	2.32	1.74 [‡]	1.55	1.96	1.66 [‡]	1.45	1.91	2.22 [‡]	1.96	2.51	1.74 [‡]	1.41	2.16
Model 2	1.62 [‡]	1.42	1.86	1.36 [‡]	1.19	1.55	1.21	1.03	1.41	1.75 [‡]	1.52	2.01	1.26	1.01	1.58
Anxiety disorder															
Model 1	1.72 [‡]	1.53	1.93	1.53 [‡]	1.36	1.71	1.57 [‡]	1.37	1.81	1.89 [‡]	1.68	2.12	1.85 [‡]	1.49	2.30
Model 2	1.42 [‡]	1.25	1.61	1.25 [‡]	1.11	1.41	1.21	1.04	1.40	1.53 [‡]	1.34	1.76	1.41 [‡]	1.12	1.77
Post-traumatic stress disorder															
Model 1	1.85 [‡]	1.52	2.25	1.47 [‡]	1.19	1.81	1.89 [‡]	1.56	2.28	2.54 [‡]	2.11	3.07	2.65 [‡]	2.02	3.46
Model 2	1.26	1.00	1.58	0.99	0.78	1.26	1.25	1.00	1.56	1.84 [‡]	1.49	2.26	1.75 [‡]	1.32	2.32

[‡] significantly different from individuals who never experienced the specific type of non-physical childhood maltreatment examined (p < 0.05). For the purposes of these models, the p-value is reported using a 95% confidence interval based on the predicted probabilities.

Notes: Data are based on retrospective reporting. Model 1 controls for sociodemographic characteristics (gender, age group, sexual orientation, marital status, educational attainment, income, population groups, and disability status). Model 2 controls for sociodemographic characteristics and having experienced physical and sexual childhood abuse.

Source: Survey of Safety in Public and Private Spaces, 2018.

Chart 2
Lifetime suicidal ideation among individuals 15 years and older by type of non-physical maltreatment experienced in childhood



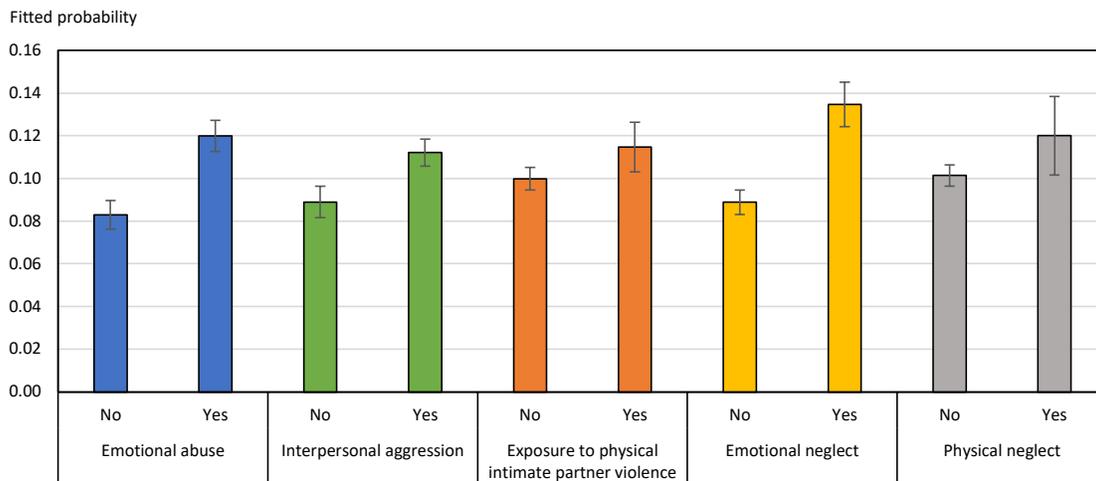
Note: Data are based on retrospective reporting.

Source: Survey of Safety in Public and Private Spaces, 2018.

The probability of an anxiety disorder diagnosis was higher for individuals who experienced emotional abuse (0.150; CI: 0.142 to 0.158) compared with those who never experienced this type of maltreatment (0.117; CI: 0.109 to 0.124). Individuals

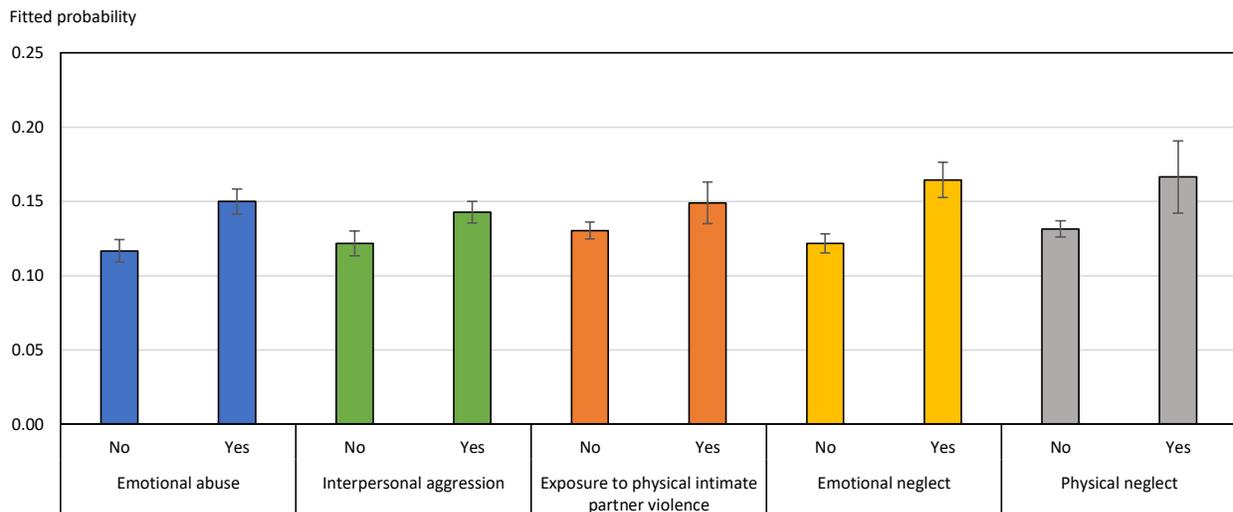
exposed to interpersonal aggression in childhood were also more likely to be diagnosed with an anxiety disorder (0.143; CI: 0.136 to 0.150) compared with those never exposed to interpersonal aggression (0.122; CI: 0.113 to 0.130). The

Chart 3
Mood disorder diagnoses among individuals 15 years and older by type of non-physical maltreatment experienced in childhood



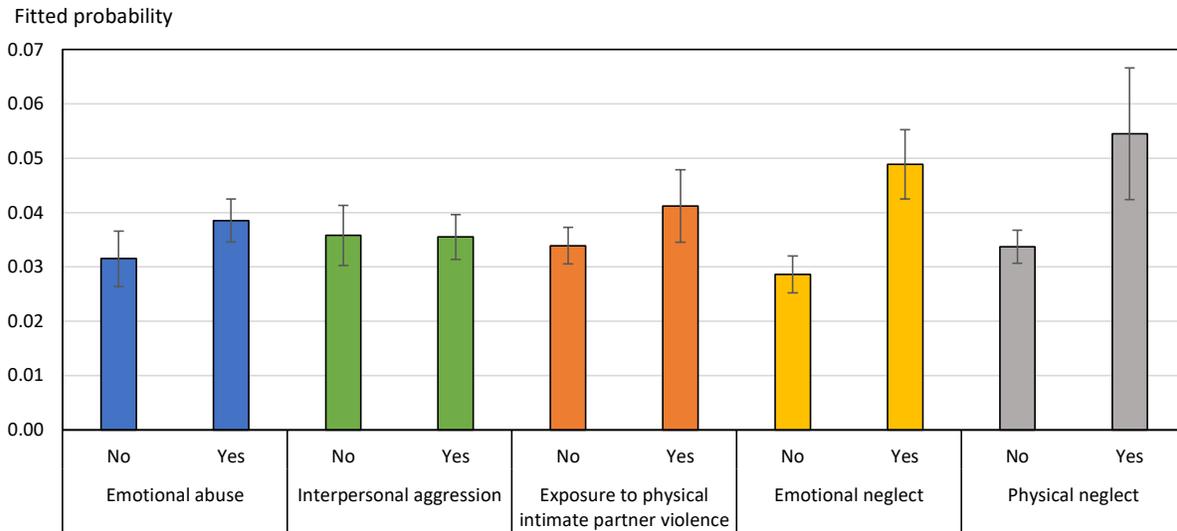
Note: Data are based on retrospective reporting.
Source: Survey of Safety in Public and Private Spaces, 2018.

Chart 4
Anxiety disorder diagnoses among individuals 15 years and older by type of non-physical maltreatment experienced in childhood



Note: Data are based on retrospective reporting.
Source: Survey of Safety in Public and Private Spaces, 2018.

Chart 5
Post-traumatic stress disorder diagnoses among individuals 15 years and older by type of non-physical maltreatment experienced in childhood



Note: Data are based on retrospective reporting.
Source: Survey of Safety in Public and Private Spaces, 2018.

probability of an anxiety disorder diagnosis was higher as well for individuals who experienced emotional neglect (0.164; CI: 0.153 to 0.176) compared with those who did not experience this type of maltreatment (0.122; CI: 0.115 to 0.128). Finally, individuals who experienced physical neglect were significantly more likely to be diagnosed with an anxiety disorder (0.166; CI: 0.142 to 0.191) compared with those who never experienced this type of maltreatment (0.131; CI: 0.126 to 0.137).

The probability of a PTSD diagnosis for individuals who experienced emotional neglect (0.049; CI: 0.042 to 0.055) was higher compared with those who never experienced this type of maltreatment (0.029; CI: 0.025 to 0.032). Similarly, individuals who experienced physical neglect were more likely to receive a PTSD diagnosis (0.054; CI: 0.042 to 0.067) compared with those who never experienced this type of neglect (0.034; CI: 0.031 to 0.037).

Discussion

The first objective of this study was to report the proportion of the Canadian population who experienced different types of non-physical maltreatment in childhood. Overall, the majority (58.0%) of individuals aged 15 years and older living in the 10 provinces and 3 territories experienced at least one type of non-physical maltreatment before age 15. Although the proportion of individuals who experienced non-physical maltreatment is similar to another study using Canadian self-reported victimization data,²¹ the estimates are not directly comparable because the previous study also included corporal punishment.

The most common type of non-physical maltreatment was exposure to interpersonal aggression (45.7%), followed by emotional abuse (40.4%), emotional neglect (20.0%), exposure to physical IPV (12.3%), and physical neglect (4.0%). Although each type of maltreatment is reported separately, it is important to consider that some individuals experienced more than one type of maltreatment. Across research studies, estimates of non-physical child maltreatment vary widely because of differences in how the specific type of maltreatment was defined and operationalized, the number of items and cut-points used to establish the presence of maltreatment, population (e.g., general population, clinical), sample characteristics, the types of questions asked and type of reporting (e.g., child, youth, or adult self-report; administrative), and the time period when the experiences occurred (e.g., age 0 to 15, 16, or 18; past year). For example, a systematic review found the prevalence of emotional abuse globally ranged from 6.5% to 53.8%, while emotional and physical neglect ranged from 1.6% to 67.3%.²² Another meta-analysis combining self-reported measures of child emotional abuse, emotional neglect, and physical neglect before age 18 were estimated at 36.3%, 18.4%, and 16.3%, respectively.²³ However, research suggests there is a high co-occurrence between childhood emotional abuse and other types of maltreatment,^{2,3,17} which may indicate dysfunctional parenting, and an investigation by a child protection agency may be necessary.²⁴

The second objective of this study was to examine whether different types of non-physical child maltreatment were associated with suicidal ideation. Individuals who experienced emotional abuse, interpersonal aggression, exposure to physical IPV, emotional neglect, or physical neglect were more likely to

report suicidal ideation compared with those who never experienced the specific type of maltreatment. Overall, the results of this study align with prior research that suggests non-physical types of child maltreatment increase the risk of suicidal ideation.^{25,26} The three-step theory of suicide suggests that individuals experiencing pain accompanied with hopelessness may begin to contemplate suicide or develop a moderate desire for suicide if they cannot envision an improvement in their situation.²⁷

The final objective of this study was to examine whether different types of non-physical child maltreatment were associated with mental health disorders. Individuals who experienced emotional abuse, interpersonal aggression, or emotional neglect in childhood were more likely to be diagnosed with a mood disorder compared with those who never experienced these types of maltreatment. Receiving a diagnosis for an anxiety disorder was associated with childhood experiences of emotional abuse, interpersonal aggression, emotional neglect, and physical neglect. Finally, individuals who experienced emotional or physical neglect before age 15 were more likely to be diagnosed with PTSD. Despite differing definitions of emotional abuse and emotional neglect, these findings are supported by a prior study that found a range of mental disorders among individuals in the general population in the United States who experienced emotional abuse only, emotional neglect only, and both emotional abuse and emotional neglect in childhood.²⁴ Despite significant research examining associations between sexual and physical abuse and mental health disorders, emotional and psychological types of maltreatment may underlie all other types of maltreatment, and these may have consequences equal to or greater than sexual and/or physical abuse.^{28,29}

Overall, this study demonstrated that all five types of non-physical childhood maltreatment were associated with suicidal ideation. Additionally, some types of non-physical maltreatment were associated with mental health disorders. These findings are unique and have not been previously known for the general Canadian population. Consistent with the PHP,¹⁵ these findings highlight the importance of expanding the definition of childhood maltreatment on population-based surveys to include non-physical types of maltreatment to further investigate their prevalence and associations with physical and mental health conditions.

Limitations and strengths

The SSPPS is cross-sectional, meaning it was unknown when respondents experienced suicidal ideation or were diagnosed with a mental health disorder; therefore, inferences about causation should not be made with these results. The item capturing interpersonal aggression is broad; it includes exposure to emotional IPV, as well as non-physical violence in other types of familial and non-familial relationships. Future research should disentangle exposure to emotional IPV, because

it can co-occur with physical IPV and negatively affect child development.^{30,31}

Prior studies have documented a strong relationship between experiencing child maltreatment and substance use.³ However, individuals who experienced emotional abuse and/or were exposed to physical IPV were not asked about substance use to cope with violence throughout their lifetime. Since substance use is often associated with childhood exposure to physical IPV,^{3,4} questions about this and other items about coping skills would be important to include in future data collection capturing non-physical childhood maltreatment. There is evidence of a dose-response (i.e., increased exposure to the number of types of maltreatment or frequency) relationship between childhood maltreatment and mental health disorders.^{3,32} However, this study dichotomized whether the respondent experienced each type of non-physical maltreatment because there are no validated measures to determine cut-points for non-physical types of maltreatment, and the distribution of responses for all types of maltreatment were bimodal. Consequently, important information about frequency and severity may be missing.

Self-reported victimization data may be biased compared with prospective reporting because of subjectivity, interpretation, or recall of a situation. However, the severity or salience of an event is a significant factor in recalling adverse experiences.^{33,34} Additionally, depression is associated with a negative memory bias, referred to as the mood-congruity hypothesis, which suggests mood-congruent information is more readily available than mood-incongruent information.^{35,36} Consequently, one study found individuals who developed depression or increased psychological distress during the study collection period were more likely to report new adverse childhood experiences that were not reported 12 years prior.³⁷

The purpose of this paper was to examine whether associations were present between non-physical types of child maltreatment and suicidal ideation, and mental health. Therefore, it was beyond the scope of this paper to investigate the frequency and severity. However, the results of this study show conservative estimates of non-physical maltreatment are significantly associated with suicidal ideation and some mental health disorders. Therefore, it is important for future research to investigate the frequency and number of types of maltreatment experienced because non-physical types of childhood maltreatment tend to be chronic³⁸ and co-occur with physical types of maltreatment.^{2,3,17,39}

Despite the limitations discussed, this study has important strengths. The 2018 SSPPS used a broad definition of child maltreatment and captured information on five different subtypes, some of which have not been previously reported at the population level in Canada. The territories were included in the survey sampling frame, which is advantageous because individuals who live in these geographic regions are often excluded from national household surveys that collect this type of information (e.g., 2012 Canadian Community Health Survey

– Mental Health component). Consequently, these results are representative of the entire Canadian population. Lastly, the use of a large nationally representative data source allowed for the inclusion of multiple covariates consistent with the PHP, as well as examining whether suicidal ideation and mental health disorders are associated with five different subtypes of non-physical childhood maltreatment.

Conclusion

The majority of the Canadian population aged 15 and older experienced at least one type of non-physical maltreatment in childhood—emotional abuse, exposure to physical IPV and/or physical neglect. Additionally, associations were found

between experiencing all five types of non-physical maltreatment in childhood and suicidal ideation. Some mental health disorders were also associated with non-physical childhood maltreatment. These findings suggest it is important for mental health professionals and clinicians working with adult populations, as well as teachers and childcare workers, to be aware of childhood emotional abuse, interpersonal aggression, exposure to physical IPV, emotional neglect, and physical neglect.

Acknowledgement

This paper was funded by Women and Gender Equality Canada.

Appendix A

Sociodemographic characteristics of the study sample

	Proportion (%)	95% confidence interval	
		from	to
Gender			
Men	49.1	48.8	49.3
Women	50.9	50.7	51.2
Sexual orientation			
Heterosexual	96.3	96.0	96.7
LGB+	3.7	3.3	4.0
Age			
15 to 29	23.6	23.4	23.9
30 to 39	17.2	17.0	17.4
40 to 49	15.4	15.2	15.6
50 to 59	16.8	16.6	17.0
60 to 69	14.0	13.9	14.2
70 to 79	8.5	8.4	8.7
80 and older	4.4	4.3	4.5
Education			
No high school diploma	12.3	11.9	12.8
High school diploma or equivalent	25.2	24.6	25.9
Trades, college, or university certificate	32.9	32.2	33.6
University degree	29.5	28.8	30.2
Personal income			
Up to \$19,999	6.2	5.8	6.6
\$20,000 to \$59,999	26.3	25.6	26.9
\$60,000 to \$99,999	23.9	23.2	24.5
\$100,000 to \$149,999	20.7	20.1	21.4
\$150,000 and above	23.0	22.3	23.7
Marital status			
Married or living common law	60.2	59.5	60.9
Separated or divorced	7.7	7.3	8.0
Widowed	4.8	4.6	5.1
Single, never married	27.3	26.7	27.9
Place of birth			
British Columbia	7.3	7.0	7.5
Alberta	7.3	7.0	7.6
Saskatchewan	3.6	3.5	3.8
Manitoba	3.4	3.2	3.5
Quebec	20.3	19.9	20.7
Ontario	25.5	24.8	26.1
Atlantic provinces	7.1	6.9	7.3
Territories	0.2 [†]	0.2	0.3
Outside Canada	25.4	24.6	26.1
Population groups			
Indigenous peoples	3.0	2.8	3.3
Black	2.7	2.4	3.0
Non-indigenous, non-racialized	75.7	74.9	76.4
Disability status			
No, does not have a disability	65.1	64.3	65.8
Yes, has a disability	34.9	34.2	35.7
Mental health disorder			
Suicidal ideation	15.8	15.2	16.4
Mood disorder	10.3	9.8	10.8
Anxiety disorder	13.3	12.8	13.9
Post-traumatic stress disorder	3.6	3.3	3.9
Experiences of physical types of child maltreatment			
Yes, experienced physical or sexual abuse	20.1	19.5	20.7
Yes, experienced physical and sexual abuse	4.2	3.9	4.5

[†] This value appears to overlap with the lower 95% confidence interval; however, the actual value is 0.24.

Note: LGB+ refers to those whose reported sexual orientation was lesbian, gay, bisexual or another sexual orientation that is not heterosexual.

Source: Survey of Safety in Public and Private Spaces, 2018.

Appendix B
Distribution of responses for each type of non-physical childhood maltreatment

	Exposure to physical														
	Emotional abuse			Interpersonal aggression			intimate partner violence			Emotional neglect			Physical neglect		
	95% confidence interval			95% confidence interval			95% confidence interval			95% confidence interval			95% confidence interval		
	%	from	to	%	from	to	%	from	to	%	from	to	%	from	to
1 or 2 times	15.8	15.2	16.4	16.5	15.9	17.1	6.2	5.9	6.6	6.9	6.5	7.4	1.3	1.1	1.5
3 to 5 times	7.9	7.4	8.3	8.5	8.0	9.0	2.5	2.3	2.8	3.4	3.1	3.7	0.6	0.5	0.7
6 to 10 times	3.7	3.4	4.1	4.0	3.7	4.3	0.9	0.8	1.0	1.7	1.5	2.0	0.4	0.3	0.5
More than 10 times	13.0	12.5	13.6	16.7	16.2	17.3	2.6	2.4	2.9	7.9	7.5	8.4	1.8	1.6	2.0

Note: Data are based on retrospective reporting.
Source: Survey of Safety in Public and Private Spaces, 2018.

Appendix C
Binary logit models predicting the likelihood of suicidal ideation or a mental health disorder among individuals 15 years and older by type of non-physical childhood maltreatment

Mental health disorder	Emotional abuse						Interpersonal aggression						Exposure to physical intimate partner violence					
	No			Yes			No			Yes			No			Yes		
	95% confidence interval			95% confidence interval			95% confidence interval			95% confidence interval			95% confidence interval			95% confidence interval		
	Margins	from	to	Margins	from	to	Margins	from	to	Margins	from	to	Margins	from	to	Margins	from	to
Suicidal thoughts																		
Model 1	0.10	0.10	0.11	0.23	0.22	0.24	0.11	0.10	0.11	0.21	0.20	0.22	0.14	0.14	0.15	0.27	0.25	0.29
Model 2	0.12	0.11	0.13	0.20	0.19	0.21	0.13	0.12	0.14	0.18	0.17	0.19	0.15	0.14	0.16	0.20	0.19	0.22
Mood disorder																		
Model 1	0.08	0.07	0.08	0.13	0.12	0.14	0.08	0.07	0.09	0.12	0.12	0.13	0.10	0.09	0.10	0.14	0.13	0.15
Model 2	0.08	0.08	0.09	0.12	0.11	0.13	0.09	0.08	0.10	0.11	0.11	0.12	0.10	0.10	0.11	0.12	0.10	0.13
Anxiety disorder																		
Model 1	0.11	0.10	0.12	0.16	0.15	0.17	0.11	0.10	0.12	0.15	0.15	0.16	0.13	0.12	0.13	0.17	0.16	0.19
Model 2	0.12	0.11	0.12	0.15	0.14	0.16	0.12	0.11	0.13	0.14	0.14	0.15	0.13	0.13	0.14	0.15	0.14	0.16
Post-traumatic stress disorder																		
Model 1	0.03	0.02	0.03	0.05	0.04	0.05	0.03	0.03	0.03	0.04	0.04	0.05	0.03	0.03	0.03	0.06	0.05	0.06
Model 2	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.03	0.04	0.03	0.03	0.04	0.04	0.03	0.05

Notes: Data are based on retrospective reporting. Predicted probabilities are reported to three decimal points because of the small estimates for post-traumatic stress disorder. Model 1 controls for sociodemographic factors (gender, sexual orientation, age group, marital status, education, population groups, and disability status). Model 2 controls for sociodemographic factors and having experienced physical and/or sexual abuse in childhood.
Source: Survey of Safety in Public and Private Spaces, 2018.

Appendix C
Binary logit models predicting the likelihood of suicidal ideation or a mental health disorder among individuals 15 years and older by type of non-physical childhood maltreatment (continue)

Mental health disorder	Emotional neglect						Physical neglect											
	No			Yes			No			Yes								
	95% confidence interval			95% confidence interval			95% confidence interval			95% confidence interval								
	Margins	from	to															
Suicidal thoughts																		
Model 1	0.12	0.11	0.13	0.29	0.28	0.30	0.15	0.15	0.16	0.30	0.27	0.34						
Model 2	0.13	0.13	0.14	0.24	0.22	0.25	0.16	0.15	0.16	0.22	0.19	0.25						
Mood disorder																		
Model 1	0.08	0.08	0.09	0.15	0.14	0.16	0.10	0.10	0.11	0.15	0.13	0.17						
Model 2	0.09	0.08	0.10	0.14	0.12	0.15	0.10	0.10	0.11	0.12	0.10	0.14						
Anxiety disorder																		
Model 1	0.12	0.11	0.12	0.18	0.17	0.19	0.13	0.13	0.14	0.20	0.17	0.22						
Model 2	0.12	0.12	0.13	0.16	0.15	0.18	0.13	0.13	0.14	0.17	0.14	0.19						
Post-traumatic stress disorder																		
Model 1	0.03	0.02	0.03	0.06	0.05	0.07	0.03	0.03	0.04	0.08	0.06	0.09						
Model 2	0.03	0.03	0.03	0.05	0.04	0.06	0.03	0.03	0.04	0.05	0.04	0.07						

Notes: Data are based on retrospective reporting. Predicted probabilities are reported to three decimal points because of the small estimates for post-traumatic stress disorder. Model 1 controls for sociodemographic factors (gender, sexual orientation, age group, marital status, education, population groups, and disability status). Model 2 controls for sociodemographic factors and having experienced physical and/or sexual abuse in childhood.
Source: Survey of Safety in Public and Private Spaces, 2018.

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