Effect of Social Support and Disclosure of Child Abuse on Adult Suicidal Ideation:
Findings From a Population-Based Study

Philip Baiden, PhD[a,*]; Barbara Fallon, PhD[b]; and Kofi Antwi-Boasiako, MSW[b]

ABSTRACT

Background: To examine the proportion of Canadian adults with a history of child abuse who disclosed the abuse to child protection services before age 16 years and identify the effect of social support and disclosure of child abuse on lifetime suicidal ideation.

Methods: Data for this study came from the Statistics Canada 2012 Canadian Community Health Survey–Mental Health (N = 9,076). Binary logistic regression was conducted to identify the effect of social support and disclosure of child abuse on suicidal ideation while simultaneously adjusting for the effect of type of child abuse and demographic, socioeconomic, health, and mental health factors.

Results: Of the 9,076 respondents who experienced at least one child abuse event, 21.5% reported ever experiencing suicidal ideation. Fewer than 6% of the respondents disclosed the abuse to someone from a child protection service before age 16 years. In the multivariate logistic regression model, respondents who disclosed the abuse to someone from child protection services were 1.37 times more likely to report lifetime suicidal ideation (95% CI, 1.10–1.71) than those who did not. Each additional unit increase in social support decreased the odds of lifetime suicidal ideation by a factor of 3% (95% CI, 0.95–0.98).

Conclusions: Social support interventions that are effective in improving individuals' perception that support is available to them may help reduce suicidal ideation among those with a history of child abuse.

Prim Care Companion CNS Disord
2017;19(6):17m02181
https://doi.org/10.4088/PCC.17m02181

[a]School of Social Work, The University of Texas at Arlington, Arlington, Texas
[b]Factor-Inwentash Faculty of Social Work, University of Toronto, Toronto, Ontario, Canada
**Corresponding author:* Philip Baiden, PhD, School of Social Work, The University of Texas at Arlington, 211 South Cooper St, Arlington, TX, 76019 (philip.baiden@uta.edu).

Suicide is a major public health issue, and according to reports from the World Health Organization (WHO),[1] over 800,000 people worldwide die annually as a result of suicide. In Canada, one of the main social determinants of suicidal behaviors including suicidal ideation is child abuse.[2,3] Longitudinal studies[4,5] from other countries and systematic reviews[6,7] have also found support for the link between child abuse and suicidal ideation. Some studies[8–12] have investigated what survivors of child abuse do following abuse. Disclosures surrounding child abuse, particularly child sexual abuse, are extremely complex, consisting of a combination of denials, revelations, and thought processing.[9,13] Even though studies[14,15] have found that individuals will benefit from telling someone about their childhood sexual abuse, some studies[8,9,13] have also noted that survivors of child sexual abuse either delay disclosing to someone about the abuse or do not disclose at all.

Findings regarding the association between disclosure and psychological functioning later in life are inconclusive. For instance, Lepore and Smyth[16] noted that simple acts of telling someone about past traumatic experiences result in improved lung functioning in asthmatic patients, enhanced psychological functioning, and enhanced social relationships and role functioning. Ullman and Filipas[17] found that the greater the extent of the disclosure as measured by how much detailed information survivors gave and the extent to which survivors talked about the abuse was inversely related to posttraumatic stress disorder (PTSD) symptoms. The authors also noted that the longer it took to disclose the abuse was positively related to PTSD symptoms after taking into account gender, sexual abuse duration and severity, positive and negative social relations, and victim self-blaming. However, in a longitudinal study examining the psychological effects of child sexual abuse, Nagel et al[18] found that children who purposefully disclosed their sexual abuse reported the poorest coping skills even though they received the most therapy sessions. O'Leary et al[19] found that telling someone at the time the sexual abuse occurred was significantly related to greater number of mental health symptoms.

Social support has also been identified as a mediating factor between child abuse and suicidal behaviors.[20–23] Jeglic et al[22] investigated suicidal ideation among their college student sample and found that suicidal ideation was associated with perceptions of low social support from friends and family. A recent study by Chang et al[24] also found a significant interaction effect between feelings of loneliness and negative life events as a predictor of suicidal behavior, suggesting that those who experienced negative life events and reported feeling lonely and isolated and a lack of social support were more likely to report experiencing suicidal ideation.

Current Study

Whereas various studies have examined disclosure of child sexual abuse[10,12,25] and factors predicting disclosure of child sexual abuse,[11,15,26] to date, few studies have examined the impact of disclosure of child abuse to child protection services (CPS) on life-threatening behaviors such as suicidal

Clinical Points

- Although studies have examined factors that promote disclosure of child abuse, few studies have examined the impact of disclosure of child abuse to child protection services and social support on suicidal ideation.
- For abused individuals, social support is a viable consideration that could help reduce suicidal ideation.
- Disclosure-based treatments and therapeutic interventions such as crisis intervention therapy, cognitive-behavioral therapy, and expressive therapies may be helpful in treating survivors of childhood abuse.

ideation. Moreover, most of the existing studies[27,28] on disclosure of child abuse tend to focus on disclosures made to parents or caregivers. Given the significant role CPS plays in protecting the welfare of children, it is important to understand whether disclosure of child abuse to CPS increases or decreases the likelihood of experiencing suicidal ideation later in life. Thus, this study seeks to examine the effect of social support and disclosure of child abuse to CPS on lifetime suicidal ideation among Canadian adults who were abused when they were children. More specifically, this study sought to (1) examine the proportion of Canadian adults with a history of child abuse who disclosed the abuse to CPS before age 16 years and (2) assess the effect of social support and disclosure of child abuse on lifetime suicidal ideation.

METHODS

Participants

This study draws on data from the Statistics Canada 2012 Canadian Community Health Survey–Mental Health (CCHS-MH), which is the fourth CCHS focus content cycle.[29] Detailed description of the objectives, methodology including sampling techniques, population excluded, and response rates of the 2012 CCHS-MH have also been provided in previous publications[30–32] and are available from the Statistics Canada website (http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=5015). The CCHS-MH is a cross-sectional survey that gathers information on factors that influence mental health through a multidisciplinary approach. A multistage cluster-sampling design with a random-sampling methodology was used to select individuals aged 15 years and over from the 10 provinces in Canada.[29] There were 25,113 respondents to the 2012 CCHS-MH.

The analysis presented in this study was limited to adults between the ages of 20 and 79 years who experienced at least one child abuse event. Respondents were asked about events that may have happened to them when they were children or before they turned 16 years old in their school, neighborhood, or family: (1) "How many times did you see or hear any one of your parents, stepparents, or guardians hit each other or another adult in your home?" (2) "How many times did an adult slap you on the face, head, or ears or hit or spank you with something hard to hurt you?" (3) "How many times did an adult push, grab, shove, or throw something at you to hurt you?" (4) "How many times did an adult kick, bite, punch, choke, burn, or physically attack you in some way?" (5) "How many times did an adult force you or attempt to force you into any unwanted sexual activity, by threatening you, holding you down, or hurting you in some way?" (6) "How many times did an adult touch you against your will in any sexual way? By this, I mean anything from unwanted touching or grabbing to kissing or fondling."[29(p13)]

Of the 25,113 respondents, complete data on all variables included in these analyses were available for 18,142 respondents of whom 9,076 (50%) experienced at least one child abuse event. Therefore, the sample analyzed in this study included 9,076 respondents.

Variables

Dependent variable. The dependent variable investigated in this study was lifetime suicidal ideation and was measured based on Statistics Canada's derived variables that classify the respondents based on whether he or she ever seriously thought about committing suicide or taking his or her own life. Respondents who seriously thought about committing suicide or taking their own life were considered as having ever experienced suicidal ideation and were coded as 1; otherwise, they were coded as 0.

Independent Variables

The 2 independent variables examined in this study were social support and disclosure of child abuse. Social support was measured as an interval/ratio variable using the Social Provision Scale,[33] which is a 10-item measure that assesses perceived availability of social support. Respondents were asked to indicate on a 4-point Likert scale the extent to which they agree with the following statements, eg, "There are people I can depend on to help me if I really need it," "There are people I can count on in an emergency." Scores on the Social Provision Scale range from 10 to 40, with higher scores indicating greater perception of the respondent being able to receive social support. The Social Provision Scale has been found to be a valid measure of social support with strong internal consistency.[30] Internal consistency (Cronbach α) for the Social Provision Scale examined in this study was $\alpha = .93$.

Disclosure of child abuse was measured as a binary variable. Those who reported experiencing at least one child abuse event were asked, "Before age 16, did you ever see or talk to anyone from a child protection organization about difficulties at home?" Those who answered yes were coded as 1; otherwise, they were coded as 0.

Covariates

The following covariates were also included in the model: age (measured in decades), gender (male vs female), race/ethnicity (white vs nonwhite), marital status (married, common law, formerly married, and single/never married), postsecondary graduate (no vs yes), and annual personal income (no income/< $20,000, $20,000–$29,999,

$30,000–$39,999, $40,000–$49,999, and ≥ $50,000). The following risk factors, which are associated with suicidal ideation, were also taken into account: self-perceived physical health, chronic pain, alcohol abuse or dependence, cannabis abuse or dependence, other drug abuse or dependence, generalized anxiety disorders, major depressive episode, and bipolar disorders. These mental illness and substance dependence variables were determined based on the World Health Organization version of the Composite International Diagnostic Interview, a structured diagnostic interview that generates a diagnosis according to the *DSM-IV* and the *ICD-10*.

Data Analyses

Descriptive statistics for all variables and reliability of the 10 items measuring social support were first computed. Bivariate association between suicidal ideation and the independent and control variables were then examined. Binary logistic regression was then conducted to identify the effect of social support and disclosure of child abuse on suicidal ideation while simultaneously adjusting for type of child abuse and other covariates. Three logistic regression models were built. Type of child abuse was entered in model 1 and subsequent models. In model 2, suicidal ideation was regressed on type of child abuse plus sociodemographic, socioeconomic status (education and income), health, and mental health diagnoses to show how much variables in model 2 attenuate the effect of child abuse on suicidal ideation. Model 3 consisted of variables in model 2 plus social support and disclosure of child abuse. Variables were considered significant if $P < .05$. Adjusted odds ratios together with their corresponding 95% confidence intervals were computed. All statistical analyses were conducted using Stata version 14 (Stata Corp, College Station, Texas).

RESULTS

Of the 9,076 respondents who experienced at least one child abuse event, 1,953 (21.5%) reported ever experiencing suicidal ideation. Fewer than 6% of the respondents disclosed to someone from CPS about the abuse before age 16 years. Half of the respondents (50.9%) were female, and 83.7% were white. In terms of type of abuse, 80% of the respondents were slapped in the face, hit, or spanked by an adult; 44.9% were pushed, grabbed, or shoved; 32.3% witnessed domestic violence; and 22.3% were physically attacked (kicked, bitten, punched, choked, or burned). Close to 1 in 4 respondents (23.8%) experienced unwanted sexual touching, kissing, or fondling, and 15% experienced forced or attempted forced sexual act. The distribution of all the variables is presented in Table 1.

Bivariate Results

As shown in Table 2, 41% of those who disclosed the abuse to someone from CPS compared to 20% of those who did not disclose the abuse reported ever experiencing suicidal ideation ($\chi^2_1 = 130.32$, $P < .001$). Mean social support

Table 1. Sample Characteristics (N = 9,076)[a]

Characteristic	Sample
Dependent variable	
Lifetime suicidal ideation	
No	7,123 (78.5)
Yes	1,953 (21.5)
Independent variable	
Disclosed abuse to child protection organization	
No	8,552 (94.2)
Yes	524 (5.8)
Social support, mean (SD)	35.52 (4.59)
Control variable	
Age, y	
20–29	1,273 (14.0)
30–39	1,568 (17.3)
40–49	1,684 (18.5)
50–59	1,980 (21.8)
60–69	1,720 (19.0)
70–79	851 (9.4)
Gender	
Male	4,457 (49.1)
Female	4,619 (50.9)
Race/ethnicity	
White	7,592 (83.7)
Nonwhite	1,484 (16.3)
Marital status	
Married	4,062 (44.8)
Common law	995 (11.0)
Formerly married	1,864 (20.5)
Single/never married	2,155 (23.7)
Postsecondary graduate	
No	3,163 (34.9)
Yes	5,913 (65.1)
Annual personal income, US $	
No income/< $20,000	1,722 (19.0)
$20,000–$29,999	2,126 (23.4)
$30,000–$39,999	1,145 (12.6)
$40,000–$49,999	1,008 (11.1)
≥ $50,000	3,075 (33.9)
Self-perceived physical health	
Good	7,703 (84.9)
Poor	1,373 (15.1)
Chronic pain	
No chronic pain	7,230 (79.7)
Chronic pain	1,846 (20.3)
Generalized anxiety disorder	
Not diagnosed	7,723 (85.1)
Diagnosed	1,353 (14.9)
Bipolar disorder	
Not diagnosed	8,670 (95.5)
Diagnosed	406 (4.5)
Major depressive episode	
Not diagnosed	7,429 (81.9)
Diagnosed	1,647 (18.2)
Alcohol abuse/dependence	
Not diagnosed	6,282 (69.2)
Diagnosed	2,794 (30.8)
Cannabis abuse/dependence	
Not diagnosed	8,072 (88.9)
Diagnosed	1,004 (11.1)
Drug abuse/dependence	
Not diagnosed	7,762 (85.5)
Diagnosed	1,314 (14.5)
Witnessed domestic violence	
No	6,143 (67.7)
Yes	2,933 (32.3)
Slapped in the face, hit or spanked by an adult	
No	1,782 (19.6)
Yes	7,294 (80.4)
Pushed, grabbed, or shoved	
No	5,001 (55.1)
Yes	4,075 (44.9)
Physical attack (kicked, bitten, punched, choked, burned)	
No	7,049 (77.7)
Yes	2,027 (22.3)
Forced or attempted forced sexual activity	
No	7,711 (85.0)
Yes	1,365 (15.0)
Unwanted sexual touching, kissing, or fondling	
No	6,915 (76.2)
Yes	2,161 (23.8)

[a]All values are n (%) unless otherwise specified.

Table 2. Distribution of Variables by Suicidal Ideation (N = 9,076)[a]

Characteristic	Suicidal Ideation		χ^2 (*P*)[b]
	No	Yes	
Disclosed abuse to child protection organization			130.32 (.001)
No	6,816 (79.7)	1,736 (20.3)	
Yes	307 (58.6)	217 (41.4)	
Age, y			118.27 (.001)
20–29	935 (73.5)	338 (26.5)	
30–39	1,185 (75.6)	383 (24.4)	
40–49	1,288 (76.5)	396 (23.5)	
50–59	1,522 (76.9)	458 (23.1)	
60–69	1,431 (83.2)	289 (16.8)	
70–79	762 (89.5)	89 (10.5)	
Gender			42.15 (.001)
Male	3,625 (81.3)	832 (18.7)	
Female	3,498 (75.7)	1,121 (24.3)	
Race/ethnicity			0.09 (.765)
White	5,954 (78.4)	1,638 (21.6)	
Nonwhite	1,169 (78.8)	315 (21.2)	
Marital status			212.39 (.001)
Married	3,461 85.2)	601 (14.8)	
Common law	754 (75.8)	241 (24.2)	
Formerly married	1,390 (74.6)	474 (25.4)	
Single/never married	1,518 (70.4)	637 (29.6)	
Postsecondary graduate			5.92 (.015)
No	2,437 (77.0)	726 (23.0)	
Yes	4,686 (79.2)	1,227 (20.8)	
Annual personal income, US $			101.92 (.001)
No income/< $20,000	1,231 (71.5)	491 (28.5)	
$20,000–$29,999	1,614 (75.9)	512 (24.1)	
$30,000–$39,999	913 (79.7)	232 (20.3)	
$40,000–$49,999	806 (80.0)	202 (20.0)	
≥ $50,000	2,559 (83.2)	516 (16.8)	
Self-perceived physical health			242.72 (.001)
Good	6,264 (81.3)	1,439 (18.7)	
Poor	859 (62.6)	514 (37.4)	
Chronic pain			198.04 (.001)
No chronic pain	5,896 (81.6)	1,334 (18.5)	
Chronic pain	1,227 (66.5)	619 (33.5)	
Generalized anxiety disorder			738.22 (.001)
Not diagnosed	6,440 (83.4)	1,283 (16.6)	
Diagnosed	683 (50.5)	670 (49.5)	
Bipolar disorder			434.18 (.001)
Not diagnosed	6,973 (80.4)	1,697 (19.6)	
Diagnosed	150 (37.0)	256 (63.0)	
Major depressive episode			1044.27 (.001)
Not diagnosed	6,318 (85.1)	1,111 (14.9)	
Diagnosed	805 (48.9)	842 (51.1)	
Alcohol abuse/dependence			129.66 (.001)
Not diagnosed	5,136 (81.8)	1,146 (18.2)	
Diagnosed	1,987 (71.1)	807 (28.9)	
Cannabis abuse/dependence			200.67 (.001)
Not diagnosed	6,509 (80.6)	1,563 (19.4)	
Diagnosed	614 (61.2)	390 (38.8)	
Drug abuse/dependence			346.00 (.001)
Not diagnosed	6,348 (81.8)	1,414 (18.2)	
Diagnosed	775 (59.0)	539 (41.0)	
Witnessed domestic violence			108.66 (.001)
No	5,012 (81.6)	1,131 (18.4)	
Yes	2,111 (72.0)	822 (28.0)	
Slapped in the face, hit, or spanked by an adult			19.95 (.001)
No	1,468 (82.4)	314 (17.6)	
Yes	5,655 (77.5)	1,639 (22.5)	
Pushed, grabbed, or shoved			145.80 (.001)
No	4,160 (83.2)	841 (16.8)	
Yes	2,963 (72.7)	1,112 (27.3)	
Physical attack (kicked, bitten, punched, choked, burned)			255.88 (.001)
No	5,793 (82.2)	1,256 (17.8)	
Yes	1,330 (65.6)	697 (34.4)	
Forced or attempted forced sexual activity			317.27 (.001)
No	6,301 (81.7)	1,410 (18.3)	
Yes	822 (60.2)	543 (39.8)	
Unwanted sexual touching, kissing, or fondling			302.44 (.001)
No	5,717 (82.7)	1,198 (17.3)	
Yes	1,406 (65.1)	755 (34.9)	
Social support, mean (SD)	35.87 (4.28)	34.23 (5.41)	200.39 (.001)

[a]All values are n (%) unless otherwise specified.
[b]For social support, we conducted a 1-way analysis of variance with *F* test.

scores among respondents with lifetime suicidal ideation were significantly lower than those of respondents with no lifetime suicidal ideation (no suicidal ideation: mean = 35.87 vs suicidal ideation: mean = 34.23; $F_{1, 9075} = 200.39$; $P < .001$). Also, mean social support scores among respondents who disclosed abuse were significantly lower than mean social support scores among respondents who never disclosed their abuse (did not disclose child abuse: mean = 35.57 vs disclosed child abuse: mean = 34.74; $F_{1, 9075} = 16.08$; $P < .001$). Significant bivariate association was also observed between each of the 6 child abuse variables and lifetime suicidal ideation, with respondents more likely to report experiencing suicidal ideation if they experienced the abuse compared to those who did not experience the abuse. With the exception of race/ethnicity, significant bivariate association was observed between all the other covariates and suicidal ideation.

Multivariate Results

Multivariate results are presented in Table 3. In model 1, all 6 types of abuse examined were significantly associated with higher odds of lifetime suicidal ideation. However, pushed, grabbed, or shoved lost its significance with the addition of covariates in model 2 and the addition of social

Table 3. Multivariate Logistic Regression Predicting Suicidal Ideation Among Adults With a History of Childhood Maltreatment (N = 9,076)

	Model 1			Model 2			Model 3		
Characteristic[a]	Exp (B)	*P*	95% CI	Exp (B)	*P*	95% CI	Exp (B)	*P*	95% CI
Witnessed domestic violence (No)									
Yes	1.28	.001	1.14–1.44	1.17	.012	1.04–1.34	1.14	.048	1.00–1.29
Slapped in the face, hit, or spanked by an adult (No)									
Yes	1.38	.001	1.20–1.59	1.38	.001	1.18–1.61	1.36	.001	1.17–1.59
Pushed, grabbed, or shoved (No)									
Yes	1.30	.001	1.15–1.46	1.11	.071	0.99–1.29	1.09	.183	0.96–1.25
Physical attack (kicked, bitten, punched, choked, burned) (No)									
Yes	1.64	.001	1.43–1.87	1.39	.001	1.24–1.67	1.35	.001	1.16–1.57
Forced or attempted forced sexual activity (No)									
Yes	1.54	.001	1.29–1.83	1.26	.009	1.06–1.57	1.24	.033	1.02–1.51
Unwanted sexual touching, kissing, or fondling (No)									
Yes	1.89	.001	1.62–2.20	1.72	.001	1.43–2.02	1.71	.001	1.43–2.04
Age, y (20–29)									
30–39				0.96	.689	0.78–1.17	0.95	.600	0.77–1.16
40–49				0.80	.031	0.65–0.98	0.77	.017	0.63–0.96
50–59				0.76	.012	0.62–0.94	0.76	.010	0.61–0.93
60–69				0.62	.001	0.49–0.77	0.61	.001	0.48–0.77
70–79				0.44	.001	0.33–0.60	0.43	.001	0.32–0.58
Gender (Male)									
Female				1.09	.192	0.96–1.25	1.13	.067	0.99–1.30
Race/ethnicity (White)									
Nonwhite				0.84	.036	0.71–0.99	0.82	.021	0.70–0.97
Marital status (Married)									
Common law				1.34	.003	1.10–1.63	1.33	.004	1.10–1.62
Formerly married				1.48	.001	1.26–1.73	1.43	.001	1.22–1.68
Single/never married				1.68	.001	1.44–1.97	1.61	.001	1.37–1.88
Postsecondary graduate (No)									
Yes				1.11	.097	0.98–1.26	1.13	.064	0.99–1.28
Annual personal income, US $ (No income/< $20,000)									
$20,000–$29,999				1.05	.540	0.89–1.25	1.08	.399	0.91–1.28
$30,000–$39,999				0.90	.347	0.73–1.12	0.95	.610	0.77–1.17
$40,000–$49,999				0.94	.604	0.76–1.18	0.99	.944	0.79–1.24
≥ $50,000				0.86	.096	0.72–1.03	0.92	.355	0.76–1.10
Self-perceived physical health (Good)									
Poor				1.50	.001	1.28–1.77	1.43	.001	1.21–1.68
Chronic pain (No chronic pain)									
Chronic pain				1.29	.001	1.12–1.49	1.27	.001	1.10–1.46
Generalized anxiety disorder (Not diagnosed)									
Diagnosed				2.18	.001	1.89–2.53	2.14	.001	1.85–2.48
Bipolar disorder (Not diagnosed)									
Diagnosed				2.20	.001	1.72–2.79	2.11	.001	1.66–2.69
Major depressive episode (Not diagnosed)									
Diagnosed				3.25	.001	2.84–3.72	3.21	.001	2.81–3.68
Alcohol abuse/dependence (Not diagnosed)									
Diagnosed				1.40	.001	1.22–1.59	1.41	.001	1.24–1.61
Cannabis abuse/dependence (Not diagnosed)									
Diagnosed				1.04	.815	0.77–1.40	1.07	.655	0.79–1.45
Drug abuse/dependence (Not diagnosed)									
Diagnosed				1.60	.001	1.21–2.10	1.55	.002	1.17–2.04
Social support							0.97	.001	0.95–0.98
Disclosed abuse to child protection organization (No)									
Yes							1.37	.006	1.10–1.71

[a]Reference category is identified in parentheses.

support and disclosure of child abuse in model 3. In the final model, those who experienced unwanted sexual touching, kissing, or fondling; were slapped in the face, hit, or spanked by an adult; were physically attacked; experienced forced or attempted forced sexual act; and witnessed domestic violence were more likely to report lifetime suicidal ideation than those who did not have these experiences. Each additional unit increase in social support decreased the odds of lifetime suicidal ideation by a factor of 3% (adjusted odds ratio [AOR] = 0.97; 95% CI, 0.95–0.98). However, respondents who disclosed the abuse to someone from CPS were 1.37 times more likely to report lifetime suicidal ideation than those who did not disclose to CPS after controlling for the effect of all other predictors (95% CI, 1.10–1.71).

Nonwhite respondents had 18% lower odds of lifetime suicidal ideation (95% CI, 0.70–0.97) compared to white respondents. Compared to those who were married, those who were in a common law relationship (AOR = 1.33; 95% CI, 1.10–1.62), formerly married (AOR = 1.43; 95% CI, 1.22–1.68), and single/never married (AOR = 1.61; 95% CI, 1.37–1.88) were more likely to report lifetime suicidal ideation. Postsecondary graduate and annual personal income were not associated with lifetime suicidal ideation. After we controlled for all other factors in the model, those who were diagnosed with major depressive episode were 3.2 times more likely to report lifetime suicidal ideation (95% CI, 2.81–3.68) than those who did not have this diagnosis. Also the odds were more than 2 times higher for those with diagnoses of generalized anxiety disorders (AOR = 2.14; 95% CI, 1.85–2.48) or bipolar disorders (AOR = 2.11; 95% CI, 1.66–2.69), alcohol abuse or dependence (AOR = 1.41; 95% CI, 1.24–1.61), or drug abuse or dependence (AOR = 1.55; 95% CI, 1.17–2.04) to report lifetime suicidal ideation than those without such diagnoses. Respondents who perceived their physical health to be poor (AOR = 1.43; 95% CI, 1.21–1.68) or reported experiencing chronic pain (AOR = 1.27; 95% CI, 1.10–1.46) were more likely to report lifetime suicidal ideation than their counterparts. We conducted an additional analysis restricted to only those who experienced severe physical or sexual abuse (n = 2,826). After we controlled for all other factors, those who experienced severe physical and sexual abuse before age 16 years had about double the odds of reporting lifetime suicidal ideation (AOR = 1.99; 95% CI, 1.59–2.48).

DISCUSSION

This study is the first to examine the effect of social support and disclosure of child abuse on suicidal ideation in a nationally representative sample of Canadian adults. The findings have important implications for the development of social support interventions for abuse survivors. The study found that 21.5% of Canadian adults with a history of child abuse reported ever experiencing suicidal ideation, and 5.8% disclosed the abuse to CPS before age 16 years. This proportion of 5.8% is fairly consistent with what some studies[34,35] have found but also contradicts findings of other studies.[17,36] Studies that rely on disclosure to parents or guardians have often found a higher proportion of disclosure than studies that rely on disclosure to CPS. It is possible that some individuals may have disclosed the abuse to their parents or guardians before age 16 years or to someone after age 16 years.

The finding that individuals who disclosed the abuse to CPS were more likely to report experiencing suicidal ideation contradicts the findings of one study. Easton and Renner[35] failed to find any significant association between disclosure and suicidal ideation among adult males with a history of sexual abuse. One explanation for the contrary finding could be that the current study used disclosure of child abuse made to CPS rather than disclosure made to a parent or caregiver. In the present study, it is possible that those who disclosed their abuse to CPS did not receive the needed referral to treatment following the disclosure, thereby making the abuse linger on into adulthood. Negative reactions to disclosure may also lead some individuals to question the usefulness of disclosing their abuse to CPS.

Feiring et al[38] found that disclosures that are met with a nonsupportive, hostile, disbelieving, dismissive, and nonprotective response could be traumatic and lead to further long-term mental health problems. A study[39] with sexual abuse survivors found that negative reactions received following disclosure were associated with higher PTSD symptoms. O'Leary et al[19] further reasoned that the positive association between disclosure and the development of mental health symptoms could be attributed to the inadequate response from caregivers. Feelings of shame and guilt, self-blame, wanting to protect others, threats from the abuser, and fear of negative consequences such as losing one's family are reasons why some individuals do not disclose sexual abuse at the time it occurs.[8,9,12,19]

In Canada, each province has child protection legislation that identifies individuals with the duty and obligation to report to CPS cases of child abuse and neglect or situations where there is potential risk of harm.[40] However, there are some obstacles to reporting child abuse to CPS, especially for children under the age of 16 years.[41] Individuals may be less likely to disclose instances of abuse in cases where the perpetrator is familial, or they may deny abuse allegations in order to protect someone they know, particularly caregivers upon whom they depend.[41,42] Disclosure often involves multiple formal stakeholders such as CPS, school authorities, physicians, police, and religious leaders and informal stakeholders such as peers and family members. In addition, retelling the abuse in great detail, multiple times, and to different stakeholders could result in a higher likelihood of retraumatization. Obstacles to reporting child abuse to CPS, especially for children under the age of 16 years, and the possibility that those who report to CPS constitute a special subset of abused children who may have experienced more severe abuse, may at least partially explain this population's higher association with suicidal ideation.

The finding that individuals with social support are not as likely to experience suicidal ideation is fairly consistent with

the extant literature[37] that found social support, particularly from parents or caregivers, plays an important role in helping victims feel safer and less stigmatized following abuse and as a result not as likely to engage in suicidal behaviors. Among individuals with a history of childhood abuse, studies have also found perceived social support to be associated with fewer symptoms of psychological distress[43–45] as well as absence of suicide-related behaviors.[7,21–23,46] A longitudinal study by Rosenthal et al[47] found that timely provision of social support following abuse disclosure promotes resilience over time.

The finding that individuals who witnessed domestic violence or were physically or sexually abused are likely to report experiencing suicidal ideation is fairly consistent with what has been found in previous studies.[48,49] Calder et al[47] found that odds were 6 times higher for those who experienced both childhood physical and sexual abuse to report recently experiencing suicidal thoughts when compared to their counterparts who reported not experiencing any abuse (95% CI, 3.22–11.33). The finding that unmarried individuals were more likely to report experiencing suicidal ideation than unmarried respondents is also consistent with several past studies.[50–52] Corcoran and Nagar[51] found that for both genders, the risk of suicide increased almost 3-fold among those who were divorced compared to those who were married.

Our finding that the experience of severe physical and sexual abuse is associated with suicidal ideation contributes to the existing literature regarding the effect of direct abuse on suicidal ideation. Some forms of child maltreatment are inherently more harmful, such as those that involve direct abuse on the body (ie, physical or sexual abuse) than others, such as indirect abuse (ie, neglect or exposure to domestic violence).[53] Generally, sexual abuse is considered the most harmful form of child maltreatment leading to suicide-related behaviors, followed by physical abuse.[54]

Limitations and Future Research Directions

There are some limitations of this study that deserve to be mentioned. First, this study relies on secondary data, thus limiting the analysis to those variables for which information is available and therefore excluding other relevant variables that may be considered essential to include in the model. For instance, the nature and timing of the disclosure, amount of information disclosed, and the nature of response received following the disclosure were not available for inclusion in the model. Additional studies that take into account these factors are warranted so as to advance our understanding of disclosure of child abuse on suicidal ideation. Second, this study relied on cross-sectional data that limit our ability to make causal inferences. Thus, only associations can be described. Given that suicidal ideation was measured in reference to lifetime, it is possible that suicidal ideation might have occurred before disclosure. Additional studies that follow individuals with a history of child abuse are needed to establish the temporal order between some of the factors identified in this study as predictors of suicidal ideation. Third, most of the information obtained from respondents is self-reported and thus may be subject to recall bias.

Finally, we were unable to examine the nature of the treatment received by individuals who disclosed their childhood abuse as these data were not collected as part of the study. The initial step following disclosure of child abuse and neglect in Canada involves an investigation and a comprehensive assessment of the abuse or neglect. On the basis of the assessment, a referral is then made to programs designed to offer services beyond the parameters of on-going CPS including referrals to specialized programs internally or referrals to other specialized agencies and mental health service providers who work with survivors of childhood abuse. A number of disclosure-based treatments and therapeutic interventions have been found to be helpful in treating survivors of childhood abuse, including crisis intervention therapy, cognitive-behavioral therapy, and expressive therapies such as art and dance move therapies, psychodrama and sandtray therapies, and poetry and other forms of writing therapies.[55] Therapists and clinicians who utilize these disclosure-based treatments agree that reviewing and transforming trauma memories are critical components in the treatment of childhood abuse survivors.[56] Additional studies are needed to examine the kind of mental health treatment individuals receive following disclosure in Ontario and whether this treatment has an impact on functioning in adulthood. Also, future studies should investigate the effect of polyvictimization on suicidal ideation.

CONCLUSION

The results of this study suggest that whereas social support is a protective factor against suicidal ideation among individuals with a history of child abuse, disclosure of child abuse to CPS increases the risk of suicidal ideation. Other health and mental health factors that were significant in the logistic regression model are generally easy to identify and should be considered when screening individuals with a history of child abuse. Social support interventions that are effective in improving individuals' perception that support is available to them may help reduce suicidal ideation among those with a history of child abuse.

Submitted: June 13, 2017; accepted September 21, 2017.

Published online: November 16, 2017.

Potential conflicts of interest: The authors report no conflicts of interest related to the subject of this article.

Funding/support: None.

Disclaimer: The views and opinions expressed in this article are those of the authors and do not represent the views of Statistics Canada. Dr Baiden had full access to all of the data and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Additional information: This article is based on data collected by Statistics Canada (http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=5015).

REFERENCES

1. Preventing suicide: A global imperative. World Health Organization website. http://www.who.int/mental_health/suicide-prevention/world_report_2014/en/. 2014. Retrieved September 5, 2014.

2. Afifi TO, MacMillan HL, Boyle M, et al. Child abuse and mental disorders in Canada. *CMAJ*. 2014;186(9):E324–E332.
3. Fuller-Thomson E, Baker TM, Brennenstuhl S. Evidence supporting an independent association between childhood physical abuse and lifetime suicidal ideation. *Suicide Life Threat Behav*. 2012;42(3):279–291.
4. Dunn EC, McLaughlin KA, Slopen N, et al. Developmental timing of child maltreatment and symptoms of depression and suicidal ideation in young adulthood: results from the National Longitudinal Study of Adolescent Health. *Depress Anxiety*. 2013;30(10):955–964.
5. Miller AB, Adams LM, Esposito-Smythers C, et al. Parents and friendships: a longitudinal examination of interpersonal mediators of the relationship between child maltreatment and suicidal ideation. *Psychiatry Res*. 2014;220(3):998–1006.
6. Evans E, Hawton K, Rodham K. Suicidal phenomena and abuse in adolescents: a review of epidemiological studies. *Child Abuse Negl*. 2005;29(1):45–58.
7. McLaughlin J, O'Carroll RE, O'Connor RC. Intimate partner abuse and suicidality: a systematic review. *Clin Psychol Rev*. 2012;32(8):677–689.
8. Alaggia R, Mishna F. Self psychology and male child sexual abuse: healing relational betrayal. *Clin Soc Work J*. 2014;42(1):41–48.
9. Ullman SE. Social reactions to child sexual abuse disclosures: a critical review. *J Child Sex Abuse*. 2003;12(1):89–121.
10. Peter-Hagene LC, Ullman SE. Social reactions to sexual assault disclosure and problem drinking: mediating effects of perceived control and PTSD. *J Interpers Violence*. 2014;29(8):1418–1437.
11. Easton SD. Disclosure of child sexual abuse among adult male survivors. *Clin Soc Work J*. 2013;41(4):344–355.
12. Ullman SE, Starzynski LL, Long SM, et al. Exploring the relationships of women's sexual assault disclosure, social reactions, and problem drinking. *J Interpers Violence*. 2008;23(9):1235–1257.
13. Alaggia R. An ecological analysis of child sexual abuse disclosure: considerations for child and adolescent mental health. *J Can Acad Child Adolesc Psychiatry*. 2010;19(1):32–39.
14. Farber BA, Berano KC, Capobianco JA. A temporal model of patient disclosure in psychotherapy. *Psychother Res*. 2006;16(4):463–469.
15. Starzynski LL, Ullman SE, Townsend SM, et al. What factors predict women's disclosure of sexual assault to mental health professionals? *J Community Psychol*. 2007;35(5):619–638.
16. Lepore SJ, Smyth JM. *The Writing Cure: How Expressive Writing Promotes Health and Emotional Well-Being*. Washington, DC: American Psychological Association; 2002.
17. Ullman SE, Filipas HH. Gender differences in social reactions to abuse disclosures, post-abuse coping, and PTSD of child sexual abuse survivors. *Child Abuse Negl*. 2005;29(7):767–782.
18. Nagel DE, Putnam FW, Noll JG, et al. Disclosure patterns of sexual abuse and psychological functioning at a 1-year follow-up. *Child Abuse Negl*. 1997;21(2):137–147.
19. O'Leary P, Coohey C, Easton SD. The effect of severe child sexual abuse and disclosure on mental health during adulthood. *J Child Sex Abuse*. 2010;19(3):275–289.
20. Gallagher M, Prinstein MJ, Simon V, et al. Social anxiety symptoms and suicidal ideation in a clinical sample of early adolescents: examining loneliness and social support as longitudinal mediators. *J Abnorm Child Psychol*. 2014;42(6):871–883.
21. Esposito CL, Clum GA. Social support and problem-solving as moderators of the relationship between childhood abuse and suicidality: applications to a delinquent population. *J Trauma Stress*. 2002;15(2):137–146.
22. Jeglic EL, Pepper CM, Vanderhoff HA, et al. An analysis of suicidal ideation in a college sample. *Arch Suicide Res*. 2007;11(1):41–56.
23. Jakubczyk A, Klimkiewicz A, Krasowska A, et al. History of sexual abuse and suicide attempts in alcohol-dependent patients. *Child Abuse Negl*. 2014;38(9):1560–1568.
24. Chang EC, Lian X, Yu T, et al. Loneliness under assault: understanding the impact of sexual assault on the relation between loneliness and suicidal risk in college students. *Pers Individ Dif*. 2015;72:155–159.
25. Sabina C, Ho LY. Campus and college victim responses to sexual assault and dating violence: disclosure, service utilization, and service provision. *Trauma Violence Abuse*. 2014;15(3):201–226.
26. Paul L, Walsh K, McCauley J, et al. Characteristics and life experiences associated with receiving a rape disclosure within a national telephone household probability sample of women. *J Community Psychol*. 2014;42(5):583–592.
27. Berliner L, Conte JR. The effects of disclosure and intervention on sexually abused children. *Child Abuse Negl*. 1995;19(3):371–384.
28. Schönbucher V, Maier T, Mohler-Kuo M, et al. Disclosure of child sexual abuse by adolescents: a qualitative in-depth study. *J Interpers Violence*. 2012;27(17):3486–3513.
29. Canadian Community Health Survey—Mental Health (CCHS): Detailed information for 2012. Statistics Canada website. http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=5015. 2013.
30. Baiden P, den Dunnen W, Fallon B. Examining the independent effect of social support on unmet mental healthcare needs among Canadians: findings from a population-based study. *Soc Indic Res*. 2017;130(3):1229–1246.
31. Baiden P, Fuller-Thomson E. Factors associated with achieving complete mental health among individuals with lifetime suicidal ideation. *Suicide Life Threat Behav*. 2016;46(4):427–446.
32. Baiden P, Fallon B, den Dunnen W, et al. The enduring effects of early-childhood adversities and troubled sleep among Canadian adults: a population-based study. *Sleep Med*. 2015;16(6):760–767.
33. Cutrona CE. Social support and stress in the transition to parenthood. *J Abnorm Psychol*. 1984;93(4):378–390.
34. Afifi TO, MacMillan HL, Taillieu T, et al. Relationship between child abuse exposure and reported contact with child protection organizations: results from the Canadian Community Health Survey. *Child Abuse Negl*. 2015;46:198–206.
35. MacMillan HL, Jamieson E, Walsh CA. Reported contact with child protection services among those reporting child physical and sexual abuse: results from a community survey. *Child Abuse Negl*. 2003;27(12):1397–1408.
36. O'Leary PJ, Barber J. Gender differences in silencing following childhood sexual abuse. *J Child Sex Abuse*. 2008;17(2):133–143.
37. Easton SD, Renner LM. Factors from Durkheim's family integration related to suicidal ideation among men with histories of child sexual abuse. *Suicide Life Threat Behav*. 2013;43(3):336–346.
38. Feiring C, Taska L, Lewis M. Adjustment following sexual abuse discovery: the role of shame and attributional style. *Dev Psychol*. 2002;38(1):79–92.
39. Ullman SE, Filipas HH. Predictors of PTSD symptom severity and social reactions in sexual assault victims. *J Trauma Stress*. 2001;14(2):369–389.
40. Fallon B, Trocmé N, MacLaurin B, et al. Provincial comparisons in the Canadian incidence study of reported child abuse and neglect—2008: context for variation in findings. *Int J Child Youth Resilience*. 2015;3(1):125–142.
41. Baiden P, Fallon B, den Dunnen W, et al. Police charging decisions in child maltreatment investigations: findings from the 2008 Ontario Incidence Study of reported child abuse and neglect. *J Public Child Welf*. 2017;11(2):211–230.
42. Paine ML, Hansen DJ. Factors influencing children to self-disclose sexual abuse. *Clin Psychol Rev*. 2002;22(2):271–295.
43. Aydin B, Akbas S, Turla A, et al. Depression and post-traumatic stress disorder in child victims of sexual abuse: perceived social support as a protection factor. *Nord J Psychiatry*. 2016;70(6):418–423.
44. Dion J, Matte-Gagné C, Daigneault I, et al. A prospective study of the impact of child maltreatment and friend support on psychological distress trajectory: from adolescence to emerging adulthood. *J Affect Disord*. 2016;189:336–343.
45. Vranceanu AM, Hobfoll SE, Johnson RJ. Child multi-type maltreatment and associated depression and PTSD symptoms: the role of social support and stress. *Child Abuse Negl*. 2007;31(1):71–84.
46. Muzik M, Brier Z, Menke RA, et al. Longitudinal suicidal ideation across 18-months postpartum in mothers with childhood maltreatment histories. *J Affect Disord*. 2016;204:138–145.
47. Rosenthal S, Feiring C, Taska L. Emotional support and adjustment over a year's time following sexual abuse discovery. *Child Abuse Negl*. 2003;27(6):641–661.
48. Miller AB, Jenness JL, Oppenheimer CW, et al. Childhood emotional maltreatment as a robust predictor of suicidal ideation: a 3-year multi-wave, prospective investigation. *J Abnorm Child Psychol*. 2017;45(1):105–116.
49. Calder J, McVean A, Yang W. History of abuse and current suicidal ideation: results from a population based survey. *J Fam Violence*. 2010;25(2):205–214.
50. Cutright P, Stack S, Fernquist RM. The age structures and marital status differences of married and not married male suicide rates: 12 developed countries. *Arch Suicide Res*. 2006;10(4):365–382.
51. Corcoran P, Nagar A. Suicide and marital status in Northern Ireland. *Soc Psychiatry Psychiatr Epidemiol*. 2010;45(8):795–800.
52. Kposowa AJ, McElvain JP, Breault KD. Immigration and suicide: the role of marital status, duration of residence, and social integration. *Arch Suicide Res*. 2008;12(1):82–92.
53. Baiden P, Stewart SL, Fallon B. The role of adverse childhood experiences as determinants of non-suicidal self-injury among children and adolescents referred to community and inpatient mental health settings. *Child Abuse Negl*. 2017;69:163–176.
54. Miller AB, Esposito-Smythers C, Weismoore JT, et al. The relation between child maltreatment and adolescent suicidal behavior: a systematic review and critical examination of the literature. *Clin Child Fam Psychol Rev*. 2013;16(2):146–172.
55. Crosson-Tower C. *Confronting Child and Adolescent Sexual Abuse*. Thousand Oaks, CA: SAGE Publications; 2014.
56. Thomas PM. Dissociation and internal models of protection: psychotherapy with child abuse survivors. *Psychotherapy: Theory, Research, Practice, Training*. 2005;42(1):20–36.