Survivors of sexual abuse: clinical, lifestyle and reproductive consequences

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Abstract

- **Background:** In recent years, an increase in the prevalence of sexual abuse of women has been reported in Canada and elsewhere. However, there are few empirical data on the extent of the problem in Canadian aboriginal populations. The authors investigated the presence of a reported history of sexual abuse and other health determinants in a sample of women attending a community health centre with a substantial aboriginal population. This allowed determination of whether reported sexual abuse and its associated demographic and health-related effects were different for aboriginal and non-aboriginal women.
- **Methods:** A sample of 1696 women was selected from women attending a community health centre in a predominantly low-income inner-city area of Winnipeg for a cross-sectional survey designed to study the association between sexual behaviour and cervical infections. The survey was conducted between November 1992 and March 1995 and involved a clinical examination, laboratory tests and an interviewer-administered questionnaire. A substudy was conducted among 1003 women who were asked 2 questions about sexual abuse.
- Results: The overall response rate for the main study was 87%. Of the 1003 women who were asked the questions about sexual abuse, 843 (84.0%) responded. Among the respondents, 368 (43.6%) were aboriginal. Overall, 308 (36.5%) of the respondents reported having been sexually abused, 74.0% of the incidents having occurred during childhood. The prevalence was higher among aboriginal women than among non-aboriginal women (44.8% v. 30.1%, $p < 10^{-10}$ 0.001). Women who had been sexually abused were younger when they first had sexual intercourse, they had multiple partners, and they had a history of sexually transmitted diseases. In addition, non-aboriginal women who had been sexually abused were more likely than those who had not been abused to have been separated or divorced, unemployed and multiparous and to have used an intrauterine device rather than oral contraceptives. Aboriginal women who had been sexually abused were more likely than those who had not been abused to have had abnormal Papanicolaou smears. The proportion of smokers was higher among the abused women than among the non-abused women in both ethnic groups.
- **Interpretation:** A history of sexual abuse was associated with other clinical, lifestyle and reproductive factors. This suggests that sexual abuse may be associated with subsequent health behaviours, beyond specific physical and psychosocial disorders. Aboriginal and non-aboriginal women who have suffered sexual abuse showed substantial differences in their subsequent health and health-related behaviours.

Résumé

Contexte : Ces dernières années, la prévalence des abus sexuels contre les femmes a augmenté au Canada et ailleurs. Cependant, il y a peu de données empiriques sur l'ampleur du problème chez les femmes autochtones canadiennes. Les auteurs ont étudié des cas d'abus sexuels signalés et d'autres facteurs de santé au sein d'un échantillon de femmes fréquentant un centre de santé communautaire où la population autochtone est particulièrement importante. Cela a permis de



Evidence

Études

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déterminer si les cas d'abus sexuels signalés et leurs conséquences au niveau de la démographie et de la santé sont différents chez les femmes autochtones et non autochtones.

- **Méthodes :** On a prélevé un échantillon de 1696 femmes parmi les clientes d'un centre de santé communautaire d'un quartier défavorisé du centre-ville de Winnipeg, afin de mener une enquête transversale conçue pour étudier la relation entre le comportement sexuel et les infections du col utérin. L'enquête a été réalisée entre novembre 1992 et mars 1995, et a consisté en un examen clinique, des tests de laboratoire et un questionnaire administré par un intervieweur. Les auteurs ont procédé à une étude secondaire chez 1033 femmes à qui on a posé deux questions sur les abus sexuels.
- **Résultats :** Le taux global de réponse pour l'étude principale a été de 87 %. Des 1003 femmes interrogées au sujet des abus sexuels, 843 (84,0 %) ont répondu. Parmi celles-ci, 368 (43,6 %) étaient autochtones. Au total, 308 répondantes (36,5 %) ont dit avoir été victimes d'abus sexuels, dont 74,0 % pendant leur enfance, la prévalence étant plus élevée chez les femmes autochtones (44,8 % contre 30,1 %, p < 0,001). Les femmes abusées ont eu leur première relation sexuelle plus jeunes, elles ont connu de nombreux partenaires et elles ont présenté une anamnèse de maladies transmises sexuellement. De plus, on a remarqué que les femmes non autochtones victimes d'abus sexuel étaient plus susceptibles d'avoir été séparées ou divorcées, en chômage et multipares et d'utiliser un moyen contraceptif intra-utérin plutôt que des contraceptifs oraux. Les femmes autochtones abusées étaient plus susceptibles d'avoir des frottis vaginaux anormaux (test de Papanicolaou). Dans les deux groupes ethniques, on retrouvait plus de fumeuses chez celles qui avaient été abusées.
- Interprétation : On a associé les antécédents d'abus sexuels à d'autres facteurs cliniques et facteurs liés à la reproduction et au mode de vie. Cela semble indiquer que les abus sexuels peuvent être associés plus tard à certains comportements face à la santé qui vont au-delà des troubles physiques et psychosociaux spécifiques. Les femmes autochtones et non autochtones victimes d'abus sexuels présentent des différences substantielles dans leur état de santé et dans leurs comportements face à la santé.

'n recent years there has been an increase in the prevalence of sexual abuse of women in many populations and settings around the world.¹ In Canada the health, social and legal problems related to sexual abuse were brought to the attention of the public by a report released by the Committee on Sexual Offences Against Children and Youths (the Badgley Committee) in 1984.² A national survey commissioned by that committee revealed that the extent of the problem was much greater than had been recognized previously. To date, few empirical data have been gathered on the extent of the problem among Canadian aboriginal people. The Royal Commission on Aboriginal Peoples, which released its main report in 1996,³ heard testimony and received submissions from aboriginal women and from organizations that help such women. Although sexual abuse is perceived to be widespread in aboriginal communities, the data supporting this hypothesis tend to be derived from groups receiving or needing services.³ The results of the Aboriginal Peoples Survey,⁴ conducted by Statistics Canada in 1991 as a post-census survey, indicated that 25% of aboriginal people in Canada

considered sexual abuse to be a problem in their community (35% of Inuit, 29% of on-reserve Indians, 22% of off-reserve Indians and 23% of Metis).

A substantial amount has been written in recent years about the long-term impact on the physical and psychosocial health of survivors of sexual abuse. Much of the research has focused on the specific consequences of sexual abuse, such as psychiatric illnesses, sexual dysfunction, interpersonal difficulties and psychosomatic illnesses.⁵⁻⁷ The concept of "health determinants" is gaining prominence in the discussion of Canadian health policy,⁸ and having been sexually abused can be considered a health determinant. Its association with other determinants of women's health should therefore be investigated. Recognizing the relation between sexual abuse and other health determinants may influence public policy and contribute to the design of culturally appropriate strategies for prevention and control. This will be especially beneficial for aboriginal women, who have substantially poorer health, lower socioeconomic status and more behavioural risk factors.9

In this paper we report on a secondary analysis of a



survey originally designed to study the association between sexual behaviour and cervical infections. However, the data collected provided information that we were able to use to investigate the association between sexual abuse and a variety of clinical, lifestyle and reproductive factors and to obtain some indication of the differences between the lives of women who have been sexually abused and those who have not.

Methods

A cross-sectional survey was conducted of women who attended a community health centre located in a predominantly low-income inner-city area of Winnipeg. The primary objective of the study was to establish the prevalence and determinants of human papillomavirus (HPV) infection. The design and results of the study have been reported elsewhere.¹⁰ Between November 1992 and March 1995, 1696 women presenting for routine care who either requested a Papanicolaou test or for whom a Papanicolaou test was recommended by 1 of the 3 staff physicians were asked to participate in the study. The response rate of the overall study was 87%.

The study consisted of a clinical examination, laboratory tests and an interviewer-administered questionnaire. Two trained nurses, with experience interviewing, counselling and tracing the contacts of people with sexually transmitted diseases, conducted the interviews in a confidential and sensitive manner. The questionnaire covered basic sociodemographic information such as age, ethnic group, marital status, education, employment, occupation and residential history. Although no direct inquiry about personal income was made, participants were categorized by income level according to postal code and aggregate, census-tract information. Behavioural and clinical information included smoking history, obstetrical and menstrual history, contraceptive practices, frequency and results of previous Papanicolaou tests, measures of sexual activity (age at first intercourse, frequency of intercourse, number of sexual partners over the woman's lifetime and during the previous year) and history of genital infections. Evidence of current HPV infection and abnormal cervical lesions was obtained from a gynecological examination, which provided cervical cells for cytologic examination and viral DNA studies and specimens for gonorrhea and chlamydia testing. The study was approved by the Committee on the Use of Human Subjects in Research of the Faculty of Medicine at the University of Manitoba as well as by the board of directors of the health centre.

Two questions on the questionnaire dealt with the issue of sexual abuse. Participants were asked, "Have you ever been the victim of any kind of sexual abuse?" and, if the answer to that was affirmative, "Were you a child or an adult when you were sexually abused?" No definition of sexual abuse was given. Because the management and staff of the health centre expressed concern about their ability to handle a large number of newly disclosed sexual abuse cases, these 2 questions were omitted from the question-naire until procedures for referral and resources for counselling could be developed, a process that took 3 months. The main study proceeded as originally scheduled to meet financial and staffing commitments. Data collected from those who participated during the first 3 months, who were not asked the sexual abuse questions, were excluded from our analysis.

Separate analyses were performed for aboriginal and non-aboriginal women. To quantify the strength of the association between sexual abuse and various variables, the Mantel–Haenszel summary odds ratio (OR_{M-H}) , adjusted for age, was computed.

Results

After the delay of 3 months, 1003 women were asked the sexual abuse question; 843 (84.0%) responded. The participants were predominantly young, with 615 (73.0%) under the age of 30. There were 368 aboriginal (43.6%) and 475 (56.3%) non-aboriginal women. The sociodemographic, behavioural and clinical characteristics of the aboriginal women differed significantly from those of the non-aboriginal women (Fig. 1).

Of the 843 respondents to the sexual abuse questions, 308 (36.5%) reported having been sexually abused. Of those who reported sexual abuse, 228 (74.0%) had been abused only as children and 51 (16.6%) only as adults; 29 (9.4%) had been abused as both children and adults. The prevalence of sexual abuse was higher among aboriginal women than among non-aboriginal women (165/368 [44.8%] v. 143/475 [30.1%], p < 0.001).

The aboriginal and non-aboriginal women did share certain similarities (Table 1). In both groups, a history of sexual abuse was associated with smoking, pattern of sexual behaviour and a history of STDs. Those who had been sexually abused were more likely to have had sexual intercourse for the first time at less than 12 years of age and to have had multiple sexual partners over their lifetime and during the previous year. Among aboriginal women, those who had been sexually abused were more than 6 times as likely as those who had not to have had more than 20 sexual partners. Among non-aboriginal women, this likelihood was about 3 times as high. Although women who had been sexually abused were more likely to have had STDs such as gonorrhea, chlamydia and genital warts, there was no difference in the results of cultures done during this survey for either gonorrhea or chlamydia or in the detection of HPV by polymerase



chain reaction. Aboriginal women, but not non-aboriginal women, were more likely to report at least one abnormal Papanicolaou test result if they had been abused.

Among non-aboriginal women, those who had been sexually abused were almost 9 times as likely to be separated or divorced than to be married. Among aboriginal women, there was a much smaller (about 2 times) and statistically nonsignificant likelihood of being separated or divorced. Among all women, those who had been sexually abused were more likely to have been pregnant 5 or more times (OR 1.6, significant only for non-aboriginal women). Among women who had been sexually abused, non-aboriginal women were more likely to be unemployed than aboriginal women. Non-aboriginal women who had been sexually abused were the most likely of all the groups to be using an intrauterine device (IUD) as a contraceptive method. The use of oral contraceptives was not associated with a history of sexual abuse in either group.



Fig. 1: Sociodemographic, behavioural and clinical characteristics of 368 aboriginal and 475 non-aboriginal women responding to questions about sexual abuse in a survey conducted at a Winnipeg community health centre. CI = confidence interval, OC = oral contraceptive, IUD = intrauterine device.

Interpretation

This study indicates that women who have been sexually abused tend to differ from those who have not in terms of a variety of personal characteristics. These associations suggest the degree to which such an event can affect the life of the abused person. In our study, sexual abuse appears to have predisposed both aboriginal and non-aboriginal women to STDs, smoking and sexual activity with a large number of partners. Among non-aboriginal women, abuse was also associated with high rates of separation or divorce as well as unemployment and multiple pregnancies. Other surveys11,12 have similarly shown an association between sexual abuse and lower socioeconomic status, larger families and higher likelihood of separation or divorce. Different types of psychosexual effects have been reported in the clinical and counselling literature.^{5,7} Among victims of sexual abuse, an excessive level of sexual activity is often observed. This has been attributed to the disruption of the process of sexual maturation.

The association between sexual abuse and sexual activity, history of STDs and smoking observed in this study suggests the universality of such effects, regardless of ethnic status. The fact that unemployment and separation or divorce were associated with sexual abuse among non-aboriginal but not aboriginal women may be because unemployment and marital breakdown are high among aboriginal women in general. In our sample, 57.9% (95% confidence interval [CI] 52.7%, 63.1%) of the aboriginal women were unemployed, whereas only 22.3% (95% CI 18.5%, 26.2%) of the non-aboriginal women were unemployed. Among the aboriginal women, 16.0% (95% CI 12.1%, 19.9%) were separated or divorced, whereas only 10.1% (95% CI 7.3%, 12.9%) of the non-aboriginal women were.

That aboriginal women who had been sexually abused were more likely to have had abnormal Papanicolaou test results is of concern, especially in view of the higher incidence of cervical cancer¹³ and the lower participation in screening¹⁴ among aboriginal women. Aboriginal women who have been sexually abused should be identified as priority candidates for cervical cancer screening and surveillance.

We recognize that findings based on responses to only 2 questions cannot take into account the complex nature of sexual abuse. The type, frequency, duration and degree of severity of the abuse, the amount of coercion used, the relationship between the victim and the perpetrator, and subsequent disclosure by and treatment of the victim may affect long-term consequences.⁵ Our quantitative study would benefit from qualitative research methods to help us understand "social phenomena in their natural settings, giving due emphasis to the meanings, experiences, and



Table '	1: Factors a	associated with	sexual abu	ise among	aborigina	I and non-abor	iginal women*

	Ethnic group; OR _{мн} (and 95% Cl)	
	Aboriginal	Non-aboriginal
Marital status		
Married	1.00 (-)	1.00 (-)
Separated or divorced	1 88 (0 87-4 06)	8 76 (3 52–22 4)
Educational level	1100 (010) 1100)	01.0 (0102 2211)
Completed high school	1.00 (-)	1.00 (-)
Did not complete high school	1.05 (0.55-2.00)	2.15 (0.84–5.48)
Employment (previous vear)		,
Employed full time	1.00 (-)	1.00 (-)
Unemployed	0.96 (0.59–1.57)	2.04 (1.21–3.45)
Smoking history	,	,
Never smoked	1.00 (-)	1.00 (-)
Smoked previously	2.77 (1.68–7.38)	1.93 (1.20–3.11)
Current smoker	2.87 (1.11–7.71)	1.99 (1.22–3.28)
Pregnancy historyt		
Pregnant once or never	1.00 (-)	1.00 (-)
Pregnant 5 or more times	1.59 (0.80 - 3.17)	1.60(1.03-2.50)
Use of oral contracentives [±]	1155 (0100 5117)	1100 (1100 2100)
Never used	1.00 (-)	1.00 (-)
Previously used	0.93 (0.53 - 1.63)	0.96 (0.50 - 1.84)
Current user	0.55 (0.26–1.16)	0.65 (0.30–1.42)
Use of IUD±	0.33 (0.20 1110)	0.05 (0.50 1.12)
Never used	1.00 (-)	1.00 (-)
Current user	1.32 (0.82 - 2.14)	1.95 (1.05–3.61)
Age at first intercourse, vrt§	1152 (0102 211 1)	1155 (1165 5161)
>19	1.00 (-)	1.00 (-)
13–15	1.03 (0.49–2.17)	3.25(1.42-7.57)
<12	6.59(1.45-34.1)	6.50 (1.18–35.8)
No. of sexual partners (lifetime) + § ¶ **		
>5	1.00 (-)	1.00 (-)
6_9	3 57 (0 96–14 4)	3 33 (1 94–5 71)
10–19	2 82 (0 83–10 0)	3 11 (1 65–5 86)
> 20	6 44 (2 03 - 21 5)	2 99 (1 58-5 65)
No. of sexual partners (previous year)+8**	0111 (2105 2115)	2.55 (1.56 5.65)
<1	1.00 (-)	1.00 (-)
2-4	2.54 (1.56-4.15)	2.43 (1.54–3.82)
> 5	3 37 (1 38-8 25)	3.09 (1.02–9.32)
History of any STD+**++	5157 (1150 0125)	5105 (1102 5152)
No	1.00 (-)	1.00 (-)
Yes	1.65(1.04-2.62)	2 42 (1 57-3 72)
Results of past Papanicolaou smears##		2112 (1107 0172)
Normal	1.00 (-)	1.00 (-)
Abnormal at least once	1.70 (1.06-2.73)	1.06 (0.66–1.70)
Results of current Pananicolaou smear §§		
Normal	1.00 (-)	1.00 (-)
Abnormal	1.16 (0.61–2.18)	1.25 (0.67-2.33)
Results of current culture for gonorrhea and chlamydia¶¶		
Negative for both	1.00 (-)	1.00 (-)
Positive for either	0.99(0.40-2.46)	0.74 (0.24–2.28)
Detection of HPV by PCR***	(
Negative	1.00 (-)	1.00 (-)
Positive	1.47 (0.86–2.51)	1.23 (0.75–2.03)

Note: OR_{skH} = Mantel-Haenszel summary odds ratio, adjusted for age (in 5 age groups); CI = confidence interval; IUD=intrauterine device; HPV = human papilomavirus infection; PCR = polymerase chain reaction. *Unless otherwise indicated, there were 203 responses from aboriginal women who

had not been sexually abused, 165 from aborginal women who had been abused, 332 from non-aborginal women who had not been abused and 143 from non-abo-riginal women who had been abused.

tn = 330 for non-aboriginal women who had not been abused. tn = 202 for aboriginal women who had not been abused.

f(n = 202 for aboriginal women who had not been abused. § n = 201 for aboriginal women who had not been abused. ¶ n = 164 for aboriginal women who had been abused. *n = 142 for non-aboriginal women who had been abused. +f(n = 200 for aboriginal women who had not been abused and 161 for aboriginal

women who had been abused.

 $\pm n = 196$ for aboriginal women who had not been abused, 160 for aboriginal women who had been abused, 299 for non-aboriginal women who had not been abused and 140 for non-aboriginal women who had been abused. \$\$n = 188 for aboriginal women who had been abused. \$\$n = 188 for aboriginal women who had not been abused, 150 for aboriginal women who had been abused, 304 for non-aboriginal women who had not been

women who had 134 for non-aboriginal women who had been abused. $\P n = 188$ for aboriginal women who had not been abused. 152 for aboriginal women who had not been abused, 152 for aboriginal women who had been abused, 304 for non-aboriginal women who had not been

abused and 134 for non-aboriginal women who had been abused. *** n = 202 for aboriginal women who had not been abused. 163 for aboriginal women who had not been abused and 331 for non-aboriginal women who had not been abused.



view of all the participants."¹⁵ The full impact of sexual abuse on the lives of women can only be recognized and understood using methods such as in-depth interviews.

The prevalence estimates in our study are comparable to those reported in Canada and elsewhere.^{1,2} We recognize that ours is not a probability sample from a defined geographic area and that comparisons across studies are beset with issues of case definition and sampling strategy. It is also probable that there are different cultural understandings and interpretations of the term and concept of "sexual abuse" that affect the likelihood of the abuse being reported. Nevertheless, more aboriginal than non-aboriginal women living in the catchment area of the health centre reported having been sexually abused, a difference supported by the personal accounts given by aboriginal women during the public hearings of the Royal Commission on Aboriginal Peoples.³

It should be emphasized that the associations we have found and referred to as "effects" of sexual abuse do not necessarily denote a causal relation. In our secondary analysis it was not possible to establish a temporal sequence between the occurrence of sexual abuse and the development of various clinical, lifestyle and reproductive events and behaviours. A prospective cohort study would be the best way to demonstrate the long-term consequences of sexual abuse. Such an undertaking, however, would require considerable time and resources and might merely confirm patterns discerned from case–control and cross-sectional studies.

As a health determinant, sexual abuse is important beyond its specific health effects. Women who have been sexually abused are more likely to smoke, to be unemployed and to be separated or divorced, all of which can affect their overall health. The pattern of sexual behaviour characterized by younger age at first sexual intercourse and multiple partners puts sexually abused women at risk for STDs and perhaps even cervical cancer.

The immediate and long-term health effects are devastating for sexually abused women. Sexual abuse has a significant impact on the health of a large segment of the population through its insidious, nonspecific effects and its interaction with other health determinants. Recognition of this impact will perhaps contribute to a public health agenda that gives priority to the prevention of sexual abuse. Furthermore, recognition of these associations by clinicians should lead to improved understanding and better clinical management of women who have been sexually abused.

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