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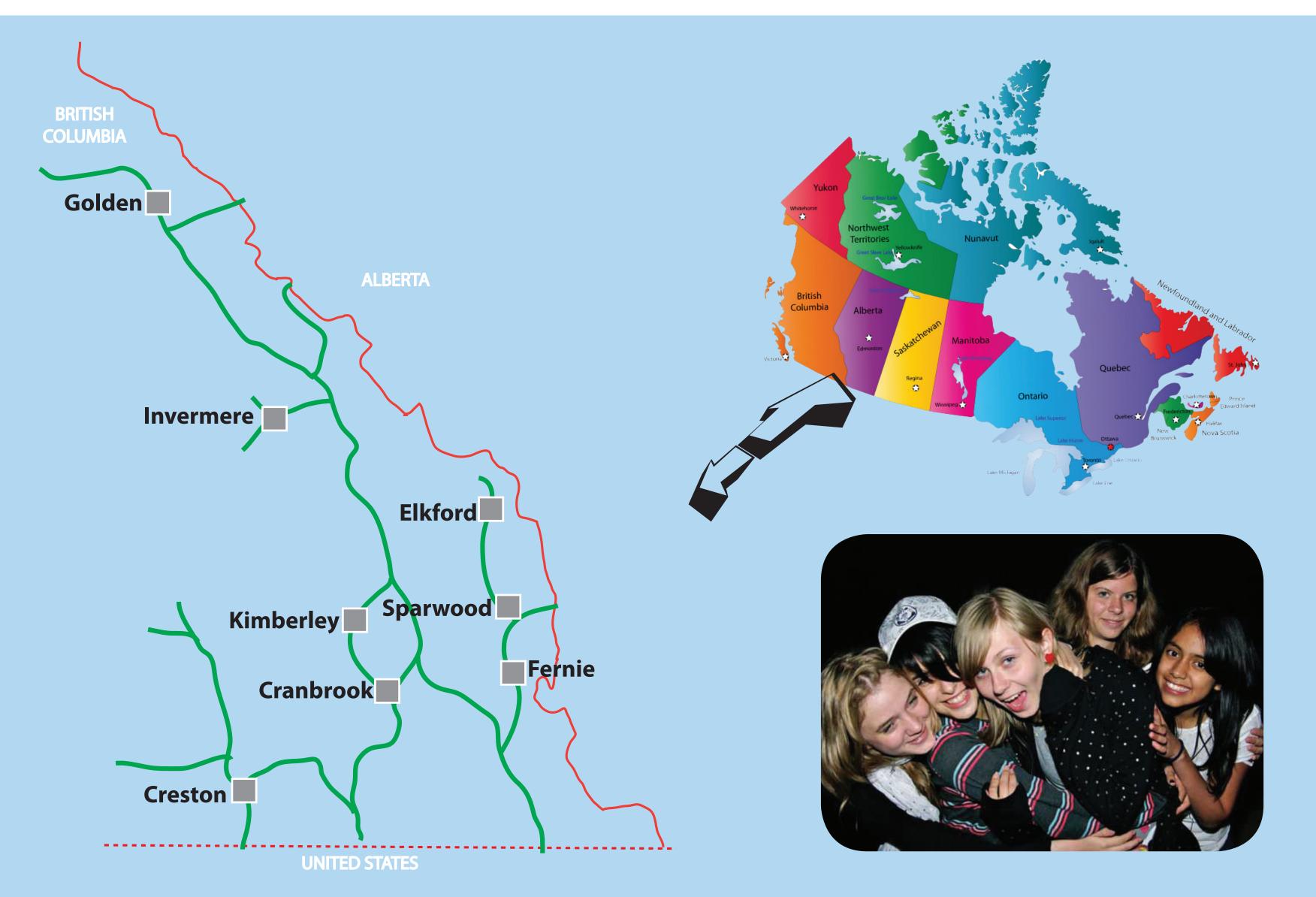
PURPOSE:

To explore the links between sexual abuse, timing of abuse, substance use and sexual harms as a consequence of substance use, among adolescent students in rural Western Canada.

METHODS:

Data was obtained from the 2011East Kootenay Adolescent Drug Use Survey, a biennial survey that assesses substance use patterns, behaviours and attitudes, and related risk behaviours amongst East Kootenay youth in Grades 7 to 12.

The East Kootenay is a large rural area in south-eastern B.C., with a population of approximately 80,000 people. 3781 youth, representing 73.8% of the student population, completed surveys that were used in the analysis.



Sexual Abuse and Sexual Behaviour Questions:

Have you ever been sexually abused? No: 91.0%; Yes: 9.0%

(Female = 77.5%, Male = 22.5%)

If you have been sexually abused, how old were you when it first happened?

Responses were collapsed to two groups:

Pre-pubertal (10 or younger), 44.0%; Pubertal and

Post-pubertal (11 or older), 56.0% Has your alcohol and/or drug use ever caused you to have sexual activity you did not plan? Yes: 24.0% Has your alcohol and/or drug use ever caused you to have sexual activity you did not want? Yes: 10.6% Have you ever used sexual activities in exchange for

or to pay for alcohol and/or drugs? Yes: 3.2%

Analyses:

One way analysis of variance comparing non-sexually abused youth, those abused pre-pubertally and those abused at or post-pubertally; on lifetime use of substances and mean age of first use of substances Logistic regressions, separated by gender, comparing non-abused students with those who have been abused pre-pubertallly, and at or post-pubertally, on likelihood of sexual harms due to substance use

Sexual Abuse and Percentage Reporting Lifetime Use of Selected Substances:

	No Sexual Abuse N=3332	Sexual Abuse 10 or Younger N=142	Sexual Abuse 11 or Older N=181
Alcohol	63.1	84.5*	91.7*
Marijuana	26.8	61.3*	63.0*
Mushrooms	8.0	28.9*	29.8*
Prescription/OTC	7.6	25.4*	24.9*
Inhalants	2.9	10.6*	13.3*
LSD	4.1	15.5**	22.7**
Cocaine	3.1	12.0**	20.4**
Ecstasy	7.0	25.4*	29.3*
Amphetamines	1.6	9.2**	15.5**
Steroids	0.6	6.3*	5.5*
Heroin	0.7	6.3*	5.5*

indicates significant difference (p< .01) compared to non-sexually abused youth ** indicates significant difference (p< .01) compared to non-sexually abused youth, and between those abused pre-pubertally and those abused at or post-pubertally

Sexual Abuse and Average Age of First Use of Selected Substances:

	No Sexual Abuse	Sexual Abuse 10 or Younger	Sexual Abuse 11 or Older
Alcohol	12.8	12.2*	12.6
Marijuana	13.7	13.0*	13.4
Mushrooms	14.4	13.8	13.8*
LSD	14.6	13.8	13.9*
Ecstasy	14.4	13.6*	14.1

* indicates significant difference (p< .01) compared to non-sexually abused youth



Unplanned Sexual Activity Due to Substance Use: Logistic regressions were significant, all predictors p<.01

	Sexual Abuse	Odds Ratio	95% C.I. for Odds Ratio	
			Lower	Upper
Girls	Pre-pubertal	2.556	1.583	4.125
	Post-pubertal	7.943	5.212	12.106
Boys	Pre-pubertal	4.848	2.236	10.511
	Post-pubertal	3.151	1.493	6.652

*Referent group is no sexual abuse

Sexual abuse significantly increases the risk of unplanned sexual activity for both boys and girls, with post-pubertal girls being nearly 8 times more likely to report than non-abused girls.

Unwanted Sexual Activity Due to Substance Use:

Logistic regressions were significant, all predictors p<.01

	Sexual Abuse	Odds Ratio	95% C.I. for Odds Ratio	
			Lower	Upper
Girls	Pre-pubertal	4.674	2.718	8.041
	Post-pubertal	13.248	8.582	20.451
Boys	Pre-pubertal	7.414	3.110	17.675
	Post-pubertal	9.267	4.116	20.866

*Referent group is no sexual abuse

Sexual abuse significantly increases the risk of unwanted sexual activity for both boys and girls, with post-pubertal girls being 13 times more likely and postpubertal boys 9 times more likely to report than non-abused girls or boys.

Sexual Exchange for Substances:

Logistic regressions were significant, all predictors p<.01

	Sexual Abuse	Odds Ratio	95% C.I. for Odds Ratio		
			Lower	Upper	
Girls	Pre-pubertal	2.343	.663	8.278	
	Post-pubertal	3.712	1.481	9.305	
Boys	Pre-pubertal	24.824	10.562	58.345	
	Post-pubertal	10.316	3.864	27.540	

*Referent group is no sexual abuse

Sexual abuse significantly increases the risk of sexual exchange for substances for both boys and girls, with pre-pubertal boys being nearly 25 times more likely to report than non-abused boys.

CONCLUSIONS:

Childhood sexual abuse, whether before puberty (age 10 or earlier) or during or after puberty (age 11 or older) is significantly associated with increased rates of substance use, and earlier onset of substance use, when compared to non-sexually abused youth. Significant differences between age of first use for alcohol and marijuana between pre-pubertally and post-pubertally abused youth suggests that early abuse may increase the likelihood of earlier use of these substances.

Pre and post-pubertal sexual abuse is significantly associated with increased likelihood of substance use-related sexual harms, when compared to non-sexually abused youth. Post-pubertal abused girls are the most likely to report unplanned sexual activity. Pre-pubertal abused boys are more likely to report trading sex for substances. Odds ratios for various behaviours vary from a low of 2.3 times more likely to a high of 24.8 times more likely, when compared to non-abused youth.

Childhood sexual abuse has been recognized as a risk factor for problems later in life. This research demonstrates that childhood sexual abuse is strongly correlated with substance use and substance use-related sexual behaviours in adolescents. Further, the difference in odds ratios for various behaviours depending on gender and age of abuse, suggests that the timing of the sexual abuse has implications with respect to psycho-social development, coping and exposure to increased risk.

Sexual abuse prevention programs, or early intervention when sexual abuse is reported, may have additional benefits by contributing to delayed and/or reduced substance use, as well as reducing unwanted or risky sexual behaviours due to substance use.



