Many researchers have been attracted to broad, national-level surveys as an antidote to the more usual practice of studying woman abuse in one location or campus and presuming that the results generalize to the entire population. However, the reverse error is also possible: presuming that one national rate may adequately represent a variety of different regions, types of schools, and cultural groups. This article analyzes the Canadian National Survey data to compare geographic regions, types of schools, and whether the students took the survey in French or English. None of these factors influenced the results. Male peer support measures, as hypothesized, did strongly affect male behavior in both physical and sexual abuse.

Aggregation Bias and Woman Abuse

Variations by Male Peer Support, Region, Language, and School Type

MARTIN D. SCHWARTZ
Ohio University
WALTER S. DEKESEREDY
Carleton University

A variety of studies have found that in Canada, as in the United States, there is a high frequency of male-to-female physical and sexual abuse in university and college dating relationships. Generally, researchers have preferred studies based on a national level, rather than local victimization surveys, for fear that the limited coverage of the latter might somehow bias the findings. Sanday (1996), for example, worries that virtually all local researchers presume that findings developed at one school or region are immediately applicable to other regions or schools. Rather, she argues, men in different regions, attending different schools, or attending different types of schools, may victimize women at different rates. Thus, many researchers have been attracted to broad, national-level surveys. However, this move may introduce the reverse error—totaling together very different regions and campuses into one rate (Hammond, 1973; Robinson, 1950).

Authors' Note: A very different version of this article was presented at the annual meetings of the American Society of Criminology, San Diego, CA, November 1997. The data gathering was supported by a grant from the Family Violence Prevention Division of Health Canada to Walter DeKeseredy and Katharine Kelly.

JOURNAL OF INTERPERSONAL VIOLENCE, Vol. 15 No. 6, June 2000 555-565

To test the influence of geographic region on woman abuse, this article will investigate the level at which men self-report as sexual aggressors and physical aggressors against women in dating relationships. Most of the sociological and social psychological literature seems to view patriarchal influence as a universal risk factor or constant, which suggests that region would not be an important variable in predicting aggression. In previous studies, both proabuse male peer support and male patriarchal attitudes and beliefs have been found in the aggregate to be highly related to the amount of physical and sexual abuse in post–secondary school courtship (DeKeseredy & Schwartz, 1998). However, there has been no investigation as to whether these influences vary across regions.

A special opportunity to look for subcultural differences exists in Canada, a bilingual society. In this context, it seems important to see whether there are differences between Anglophones and Francophones. If there are subcultural regional variations in violence toward women, in many ways the differences represented by language provide the most important cultural split in Canada.

Finally, this study will look at different types of schools. Virtually all local victimization surveys have been done in 4-year or graduate institutions, no doubt because researchers used their own institutions, which tend to be these types of schools. Here we distinguish between universities, which in the Canadian context means 4-year and graduate academic institutions, and colleges, which refers to 2- and 4-year community colleges and technical schools.

This study examines how these issues vary across five different Canadian regions. These include the Atlantic provinces (Newfoundland, New Brunswick, Nova Scotia, Prince Edward Island), the Prairie provinces (Manitoba, Saskatchewan, Alberta), British Columbia, Ontario, and Quebec. A final "region" was also created, which included Anglophone students studying in English in Quebec, and Francophone students studying in French in English-speaking provinces. For most of the analyses here, these students were removed from the analysis because they confound the geographic nature of region. Where relevant, as shall be seen, these students were returned to the sample pool.

THEORETICAL FRAMEWORK

The research with regard to earlier theoretical work on the ways in which all-male networks encourage and justify woman abuse in university and college dating guides is reported here (see Schwartz & DeKeseredy, 1997). Briefly, the argument is that some men experience considerable life events

stress in dating when their female partners reject or fail to live up to the ideals of familial or courtship patriarchy. These women may be regarded as appropriate targets of abuse by some of the male peers of these men. For example, male peers may tell men to sexually, physically, and psychologically mistreat dating partners who challenge the mens' patriarchal authority, refuse to provide them with sexual gratification, or both.

Similar theories have been advanced to explain the link between familial patriarchy and wife beating (Bowker, 1983; Godenzi, 1997). However, these and other male peer support theories have not been tested for regional variations in proabuse male peer support. Our first hypothesis is primarily informed by the results of Statistics Canada's national Violence Against Women Survey (Johnson, 1996) and data generated by the third cycle of the General Social Survey (Sacco & Johnson, 1994). These victimization surveys show that the risk of violent crime, including male violence against female wives or cohabiting partners, increases as one moves from eastern to western Canada, although this was not duplicated by Lupri (1988).

Of course, this study is one of courtship and dating violence, whereas the other studies were more broad. However, based on these data, the first hypothesis tested here is that the rate of male-to-female physical abuse in post–secondary school dating is higher in western than in eastern and central Canada. The second hypothesis is that the rate of male-to-female sexual abuse in post–secondary school dating is higher in western than in eastern and central Canada.

We are aware that male peer support is a key determinant of woman abuse in both dating and marriage or cohabitation (Schwartz & DeKeseredy, 1997). Thus, we also anticipate—and this is our third hypothesis—that western Canadian male students are more likely to receive proabuse male peer support than male students enrolled in eastern institutions.

Type of Campus and Language Spoken

There still may be some types of variations in physical and sexual woman abuse that are not measured in the hypotheses above. For example, in the United States, Koss (1988) found that the rates of sexual assault at large private and major public universities were 2 times greater than those reported by students at religiously affiliated schools. As suggested earlier, Sanday (1996) has been concerned that abuse rates at different types of schools may be very different. Most studies in this area have been of only one or two schools. If findings were being generalized to an entire nation, it would seem that the school chosen would be very important if there were great variation in the amount of abuse in different types of schools. Part of Sanday's concern can be

examined by looking at whether college (2-year and technical school) and university (4-year and graduate institutions) students differ in the rates at which they self-report abusive behavior. Because the literature was not clear on this question, there is not a formal research hypothesis here.

We were able to look at a second factor for which we do not provide a hypothesis because there is no argument in the literature either way. This is the question of regional subcultures based on language. As suggested above, in a society that often sees itself as split into competing cultures based on language, it would seem useful to determine if there are distinctively Anglophone or Francophone variations in the rates of abuse. If theorists feel that regional culture is important in determining the rate of abuse, this would be an excellent place to start an investigation.

METHOD

The data presented in this article are derived from the Canadian National Survey (CNS) (DeKeseredy & Schwartz, 1998), a national representative sample survey of community college and university students (for a description of the method and research protocol, see DeKeseredy and Schwartz, 1998). Questionnaires were administered in both French and English to 95 undergraduate classes from coast to coast with more than a 99% response rate. The 1,307 men surveyed had a median age of 22.3, and two thirds were 1st- or 2nd-year students. Members of many different ethnic groups participated in the CNS, but most of the respondents identified themselves as either English Canadian (46%) or French Canadian (27%).

Definitions and Measurement

Sexual Abuse

The prevalence of sexual abuse was operationalized using a slightly modified version of Koss, Gidycz, and Wisniewski's (1987) Sexual Experiences Survey (SES). The SES employed in this study asks about 10 specific sexual experiences that men may have had after leaving high school. The men were asked if they had sexually forced women in a variety of ways ranging from unwanted sex play due to pressure, to sexual intercourse by the use of physical force. For use in logistic regression, the data were reduced to a dichotomous variable in which each male either did or did not admit to engaging in any of the sexual experiences as an aggressor.

Physical Abuse

The prevalence of physical abuse by men was measured using items from Straus and Gelles's (1986) Conflict Tactics Scale (CTS). The CTS included physical abuses—threw something at her, pushed, grabbed or shoved, slapped, kicked, bit or hit with fist, hit or tried to hit with something, beat her up, choked her, threatened or used a knife or gun. Men were asked if they had engaged in these behaviors with women in dating relationships since leaving high school. The variable is whether the men admit to any of the abuses. Men who were married were specifically and repeatedly urged to think back to dating relationships only.

Male Peer Support

Male peer support is defined here as the attachments to male peers who sexually and physically assault women and the resources the peers provide that perpetuate and legitimate this abuse. This support is multidimensional: There are a variety of social and social psychological processes by which male college peers influence men to physically and sexually victimize women (DeKeseredy & Schwartz, 1998; Godenzi, 1997).

Informational Support Index (INFINDEX). Informational support refers to the guidance and advice that influences men to physically and sexually abuse their dating partners. To measure this, we created an index by adding scores on six items (Cronbach's alpha = .76) on whether a man reports that his male friends have told him that women owe him sex or whether he should respond with force to girlfriends' challenges to his authority, including refusing sex. For logistic regression, the data were reduced to a dichotomous variable of whether the man said no to all of the statements or said yes to any one of the statements.

Attachment Index (ATTINDEX). One form of attachment is whether the respondent has male friends who have actually engaged in physical or sexual violence against women (DeKeseredy & Schwartz, 1998). Men were asked how many friends engaged in physical force to make dates or girlfriends accede to a demand, or who attempted to physically force a date or girlfriend into sexual activity.

Male peer patriarchal support. Peers' patriarchal attitudes were measured using an index (Cronbach's alpha = .80) consisting of the eight items found in the male respondents' Patriarchal Attitude Index (PATINDEX). The variable

here (SLAP) was reduced to whether the man said yes or depends to any of the items. Respondents were asked whether their male friends would approve of a man slapping his dating partner or girlfriend under a variety of conditions, including she will not do what he says, she insults him either in private or public, she gets drunk, she will not have sex with him, she is sobbing hysterically, he finds out she is dating another man, or she hits him first during an argument.

Male Respondents' Adherence to the Ideology of Familial Patriarchy

This is defined as a discourse that supports the abuse of women who violate the ideals of male power and control over women in intimate relationships (Smith, 1988). Relevant themes of this ideology are an insistence on women's obedience, respect, loyalty, dependence, sexual access, and sexual fidelity (Dobash & Dobash, 1979). CNS data analyzed by DeKeseredy and Kelly (1993) show that men who report physically, sexually, and psychologically abusing their dating partners are more likely to espouse this ideology than are men who do not report abusive behavior. Here, the patriarchal beliefs (PATBELIEFS) theme was measured with a question used by Smith (1990), asking men to agree or disagree with the statement, "sometimes it is important for a man to show his wife/partner that he is head of the house" (p. 264). *Agree* was coded as 0, and *disagree* as 1.

To measure patriarchal attitudes, male respondents were asked if they would approve of a man slapping his dating partner or girlfriend in similar situations to those used above in measuring peer patriarchal attitudes. The dichotomous variable (PATINDEX) compared those who felt it was never acceptable to slap a partner to those who felt it was or might be.

Except as noted, the variables were coded 0 for *never, none,* or *does not approve*.

RESULTS

Table 1 presents the results of a dichotomous logistic regression in which the dependent variable is whether the man admits to any of the sexual abuse items in the SES survey. As can be seen, regions are not significant in predicting the level at which men admit to such victimization. The ATTINDEX, the PATINDEX, or the patriarchal attitudes also are not a measure of whether the man approved of slapping a wife or girlfriend, SLAP. Statistically significant measures include the informational support measure, INFINDEX, the patri-

TABLE 1: Logistic Regression for the Dependent Variable Admitted Sex Abusers

Variable	B	SE	*Wald*	df	*Significance*	R	*Exp*B
ATTINDEX	0.1543	0.1905	0.6558	1	0.4180	0.0000	1.1668
Region			1.2444	4	0.8707	0.0000	
Region 1	–0.0310	0.4306	0.0052	1	0.9426	0.0000	0.9695
Region 2	–0.8889	0.3341	0.0709	1	0.7901	0.0000	0.9149
Region 3	0.1546	0.3384	0.2088	1	0.6477	0.0000	1.1672
Region 4	–0.0014	0.3605	0.0000	1	0.9969	0.0000	0.9986
INFINDEX	0.8618	0.1915	20.2613	1	0.0000	0.1422	2.3675
PATINDEX	0.1815	0.2473	0.5385	1	0.4630	0.0000	1.1990
PATBELIEFS	0.5348	0.2251	5.6449	1	0.0175	–0.0635	0.5858
SLAP	0.2932	0.2196	1.7818	1	0.1819	0.0000	1.3407
PHYSICAL	0.5307	0.2107	6.3467	1	0.0118	0.0694	1.7001
Constant	1.7883	0.4009	19.8941	1	0.0000		

NOTE: N = 1,288; –2 log likelihood = 837.162; goodness = 936.337; chi-square = 65.998; df = 10; significance = .0000. ATTINDEX = attachment index; INFINDEX = informational support index; PATINDEX = patriarchal index; PATBELIEFS = patriarchal beliefs; SLAP = approval of slapping; PHYSICAL = admission of physical abuse.

archal beliefs question on whether a man has to show who is head of the house, PATBELIEFS, and the measure of whether the man admits to physical abuse of women while dating (PHYSICAL).

Although this table does not account for a very large amount of variation, it does show clearly that informational male peer support is a very important factor across Canada, along with such patriarchal beliefs as the importance of a man showing that he is head of the household, in determining who will be a sexual abuser in dating relationships. Regional differences are not significant.

Table 2 has a similar analysis, except that the dependent variable is physical abuse and the sexual abuse variable has been entered into the equation as an independent variable. Once again, the various regions were not related to the amount of physical abuse. The primary predictor variables, again, were informational male peer support, INFINDEX, and PATBELIEFS. One difference here, perhaps not surprising in a measure of physical abuse, is that the strongest predictor in the entire equation is SLAP, where men who are more likely to approve of slapping a woman in an intimate relationship are also more likely to admit physically abusing a woman in an intimate relationship. Once again, there is a small but statistically significant relationship between physical abuse and sexual abuse.

The third hypothesis in this study is that there is more proabuse male peer support for violence against women in college and university intimate rela-

TABLE 2: Logistic Regression for Dependent Variable Physical Abuse

Variable	B	SE	*Wald*	df	*Significance*	R	*Exp*B
ATTINDEX	0.3408	.1949	3.0571	1	.0804	.0345	1.4061
Region			4.0518	4	.3990	.0000	
Region 1	–0.6373	.4400	2.0972	1	.1476	–.0105	0.5287
Region 2	–0.3733	.3184	1.3748	1	.2410	.0000	0.6884
Region 3	–0.3738	.3292	1.2899	1	.2561	.0000	0.6881
Region 4	–0.6755	.3609	3.5030	1	.0613	–.0412	0.5089
INFINDEX	0.7522	.1973	14.5351	1	.0001	.1189	2.1217
PATINDEX	–0.1788	.2724	0.4307	1	.5117	.0000	0.8363
PATBELIEFS	–0.5338	.2318	5.3062	1	.0212	–.0611	0.5863
SLAP	1.1764	.2419	23.6531	1	.0000	.1563	3.2426
Sexual	0.5406	.2100	6.6246	1	.0101	.0722	1.7170
Constant	–1.7164	.3956	18.8247	1	.0000		

NOTE: N = 1,288; –2 log likelihood = 790.680; goodness = 953.783; chi-square = 95.657; df = 10; significance = .0000. ATTINDEX = attachment index; INFINDEX = informational support index; PATINDEX = patriarchal index; PATBELIEFS = patriarchal beliefs; SLAP = approval of slapping.

tionships in the west than in other regions of Canada. Here, in the logistic regression analysis, we chose the strongest male peer support item we had as the dependent variable. This is the INFINDEX, which measures how much proabuse information a man receives from his peers. Region was then entered as an independent variable along with male peer variables, including the ATTINDEX, the PATINDEX, and PATBELIEFS. As can be seen from Table 3, region had absolutely no effect whatsoever in predicting the values of the dependent variable. However, the various male peer support variables turned out to be strongly related to each other.

Language and University Type Variation

Table 4 compares university to college students and finds no statistically significant difference either on those who admit to sexual abuse or those who admit to physical abuse. In Table 5, an identical analysis was carried out based on the language in which the student took the survey. This was more complex than simple geography. In fact, nearly 10% of all Canadian students enroll in what we call “language crossover” institutions. However, Table 5 makes it clear that English and French speakers admit to both sexual and physical abuse at virtually identical rates.

TABLE 3: Logistic Regression Dependent Variable INFINDEX

Variable	B	SE	*Wald*	df	*Significance*	R	*Exp*B
ATTINDEX	0.8460	0.1424	35.3012	1	.0000	.1517	2.3302
PATINDEX	1.1065	0.1670	43.8931	1	.0000	.1701	3.0236
Region			7.0282	5	.2186	.0000	
Region 1	0.0317	0.3551	0.0080	1	.9288	.0000	1.0322
Region 2	0.2256	0.2796	0.6513	1	.4197	.0000	1.2531
Region 3	–0.0928	0.2877	0.1040	1	.7470	.0000	0.9114
Region 4	0.1904	0.3291	0.3345	1	.5630	.0000	1.2097
Region 5	–0.2696	0.3056	0.7784	1	.3776	.0000	0.7637
PATBELIEFS	–0.8820	0.1700	26.9182	1	.0000	–.1312	0.4139
Constant	–1.4483	0.3272	19.5948	1	.0000		

NOTE: $N = 1,307$; –2 log likelihood = 1315.544; goodness = 1252.779; chi-square = 131.743; $df = 8$; significance = .0000. ATTINDEX = attachment index; INFINDEX = informational support index; PATINDEX = patriarchal index; PATBELIEFS = patriarchal beliefs.

TABLE 4: School Type and Admitted Victimizing

	University		*College*	
	n	*%*	n	*%*
No sex abuse	570	81.2	341	79.5
Any sex abuse	132	18.8	88	20.5
No physical abuse	551	82.4	352	81.7
Any physical abuse	118	17.6	79	18.3

NOTE: For no sex abuse/any sex abuse: chi-square = 0.497; $df = 1$; significance = .481. For no physical abuse/any physical abuse: chi-square = 0.085; $df = 1$; significance = .770.

DISCUSSION AND CONCLUSION

The most important goal of this research was to determine whether there were regional variations in the rates at which men admit to being sexual and physical abusers of women in dating relationships in colleges and universities in Canada. In this data set, there are no such regional differences. Preliminarily, this study lends support for the argument that male peer support for violence against women is a constant, at least within postsecondary educational institutions. In our modern, if not postmodern, media driven society, any earlier regional variations in attitudes and behaviors seem to have been reduced in favor of a similar and more constant form of culture throughout Canada. However, the data here confirmed other findings that male peer sup-

TABLE 5: Language and Admitted Victimizing

	English		*French*	
	n	%	n	%
No sex abuse	575	79.5	337	82.4
Any sex abuse	148	20.5	72	17.6
No physical abuse	580	82.2	323	82
Any physical abuse	126	17.8	71	18

NOTE: For no sex abuse/any sex abuse: chi-square = 1.371; *df* = 1; significance = .242. For no physical abuse/any physical abuse: chi-square = 0.005; *df* = 1; significance = .943.

port is an important variable in determining which college and university men are involved in the abuse of women, or at least admit to such abuse. We found very strong relationships between the male peer support measures. Although the third hypothesis, that there will be regional variation, was not confirmed, an examination of the table makes it plain that the male peer support variables are related to male behavior.

Regions, school type, and the language in which the survey was taken were not related to admitted levels of male violence. This provides further evidence that there is a culture that supports the abuse of women at a fairly constant rate across Canada. Men report being sexual or physical abusers at a fairly constant rate from the Atlantic to the Pacific Oceans, whether in 2-year community colleges or major research universities, and whether they are Anglophone or Francophone.

REFERENCES

Bowker, L. (1983). *Beating wife-beating.* Lexington, MA: Lexington Books.

DeKeseredy, W. S., & Kelly, K. (1993). Woman abuse in Canadian university and college dating relationships: The contribution of the ideology of familial patriarchy. *Journal of Human Justice, 4,* 25-52.

DeKeseredy, W. S., & Schwartz, M. D. (1998). *Woman abuse on the college campus: Results from the Canadian national survey.* Thousand Oaks, CA: Sage.

Dobash, R. E., & Dobash, R. (1979). *Violence against wives: A case against the patriarchy.* New York: Free Press.

Godenzi, A. (1997). *Male peer support and violence against women: A revision and integration of Hirschi and Sutherland*. Unpublished manuscript, University of Fribourg.

Hammond, J. L. (1973). Two sources of error in ecological correlation. *American Sociological Review, 38,* 764-777.

Johnson, H. (1996). *Dangerous domains: Violence against women in Canada*. Toronto: Nelson Canada.

Koss, M. P. (1988). Hidden rape: Sexual aggression and victimization in a national sample of students in higher education. In A. W. Burgess (Ed.), *Rape and sexual assault II* (pp. 3-25). New York: Garland.

Koss, M. P., Gidycz, C.A., & Wisniewski, N. M. (1987). The scope of rape: Incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. *Journal of Consulting and Clinical Psychology, 55*, 162-170.

Lupri, E. (1988). Male violence in the home. In C. McKie & K. Thompson (Eds.), *Canadian social trends* (pp. 170-172). Toronto: Thompson.

Robinson, W. S. (1950). Ecological correlations and the behavior of individuals. *American Sociological Review, 15*, 351-365.

Sacco, V., & Johnson, H. (1994). Violent victimization. In C. McKie & K. Thompson (Eds.), *Canadian social trends* (pp. 415-418). Toronto: Thompson.

Sanday, P. R. (1996). Rape-prone versus rape-free campus cultures. *Violence Against Women, 2*, 191-208.

Schwartz, M. D., & DeKeseredy, W. S. (1997). *Sexual assault on the college campus: The role of male peer support*. Thousand Oaks, CA: Sage.

Smith, M. (1990). Patriarchal ideology and wife beating: A test of feminist hypothesis. *Violence and Victims, 5*, 257-273.

Smith, M. D. (1988). Male peer support for woman abuse: An exploratory study. *Journal of Interpersonal Violence, 6*, 512-519.

Straus, M., & Gelles, R. (1986). Societal change and change in family violence from 1975 to 1985 as revealed by two national surveys. *Journal of Marriage and the Family, 48*, 465-479.

Martin D. Schwartz is Presidential Research Scholar, Chair, and Professor of Sociology at Ohio University. He has written more than 60 articles, chapters, and books on a variety of topics in criminology, although emphasizing studies in violence against women. He chairs the Division on Critical Criminology of the American Society of Criminology, and formerly won the Division's top award. At Ohio University, he has won the outstanding graduate faculty award, the College of Arts and Sciences Outstanding Teacher Award twice, the Office of Lifelong Learning's service award, and is the first social and behavioral scientist to hold the title of Presidential Research Scholar.

Walter S. DeKeseredy is a professor of sociology at Carleton University, Ottawa, Ontario. He has published dozens of journal articles and book chapters on woman abuse and left realism. He has won Carleton University's Research Achievement Award and the American Society of Criminology Division on Critical Criminology's Critical Criminologist of the Year Award. He has also published 10 books on subjects including woman abuse, deviant behavior, social problems, women and crime, and criminology. His current research is centered on crime and crime prevention in public housing estates.