Comparing Female Victims of Separation/Divorce Assault across Geographical Regions

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Abstract
Recent analyses of National Crime Victimization Survey (NCVS) data show that male-to-female separation/divorce assault varies across geographic regions in the United States, with rural rates of such woman abuse being higher than those for suburban and urban areas. Using the same data set, the main objective of this paper is to present the results of an investigation into whether characteristics of female victims of separation/divorce assault also differ across urban, suburban, and rural communities.

Keywords
Separation/divorce assault, National Crime Victimization Survey, geographic region, male perpetrated violence, rural, intimate violence.

Introduction
It is well known among social science experts in the field that rates of private male violence against women vary across intimate relationship status categories. For example, separated/divorced women are at much higher risk of being murdered, beaten, raped and harmed by their intimate partner when compared to their married counterparts (Basile and Black 2011; Brownridge 2009; DeKeseredy 2011). Furthermore, a growing literature reveals that rural separated/divorced women are more likely to be abused by current and former male partners than women living in urban and suburban areas (Rennison, DeKeseredy and Dragiewicz 2012, in press). However, it is yet to be determined whether characteristics of female victims of separation/divorce assault differ across geographic regions in the United States (US). This article uses aggregate 1993 to 2010 National Crime Victimization Survey (NCVS) data to help fill this research gap.
We hypothesise that female victims will differ because the contexts in which rural, suburban,
and urban women are abused are distinct (DeKeseredy and Schwartz 2009). Consider that,
while many women living in more heavily populated areas suffer in silence and cannot access
adequate social support resources, these problems are worse for rural females (Merwin, Snyder
and Katz 2006; Rennison et al. in press). As well, rural women face additional challenges such as
geographic and social isolation and inadequate (if any) public transportation (Lewis 2003;
Logan et al. 2006). Another major difference between rural and other areas is that the former
have stricter privacy norms that prohibit women from publicly speaking about their plight and
seeking help (DeKeseredy and Schwartz 2008; Hogg and Carrington 2006).

Biased policing is also more prevalent in rural places where police officers are part of dense
mateship networks of playing sports and drinking alcohol. Police acquainted with these
networks are less likely to arrest male batterers because of what is referred to in Australia as
‘mateship norms’ (Owen 2012; Scott and Jobes 2007). Research focusing on rural woman,
starting with Websdale’s (1998) ethnography, continues to point to a ‘rural patriarchy’ in which
violent men are more likely to be protected by an ‘ol’ boys network’. Moreover, DeKeseredy and
Schwartz’s (2009) qualitative study of separation/divorce sexual assault in rural Ohio suggests
that patriarchal male peer support is more deeply entrenched in rural areas. This problem is
defined as ‘attachments to male peers and the resources they provide that encourage and
legitimate woman abuse’ (DeKeseredy 1990: 130).

Intensifying rural women’s troubles is lack of insurance, which restricts many women’s ability
to access health services (Basile and Black 2011; Mueller and MacKinney 2006; Patterson
2006), and a high rate of gun ownership in rural communities (Owen 2012). There may be some
additional factors that contribute to differential risk such as those examined in this study (for
example, employment status). Indeed, much more research on rural/urban variations in
separation/divorce assault is necessary to develop a richer understanding of the dynamics of
women who have left abusive partners (see Sev’er’s (2002) Fleeing the House of Horrors). As
Weisheit, Falcone and Wells (2006: 181) observe, there are still ‘many unanswered questions’
about a various types of intimate violence in rural places.

Methods

Data

Conducted annually since 1973 and redesigned in 1992 (Jaquier, Johnson and Fisher 2011), the
NCVS is one of the largest ongoing representative sample surveys funded by the US federal
government. It is typically used to examine the extent, distribution, correlates and consequences
of crimes committed outside domestic/household settings but, recently, a small cohort of North
American scholars is demonstrating that the NCVS yields fruitful information about male
violence against female intimates (DeKeseredy, Dragiewicz and Rennison 2012; Lauritsen and
Heimer 2008; Rennison et al. 2012, in press; Xie, Heimer and Lauritsen 2012). Together with
other large-scale surveys such as the National Violence Against Women Survey and the National
Intimate Partner and Sexual Violence Survey (Black et al. 2011; Tjaden and Thoennes 2000), the
NCVS ‘eradicates the stereotype that women are at greatest risk of violence from the
stereotypical stranger lurking in the bushes...’ (Bachman 2000: 865). Still, it is only in the past
two years that the NCVS has been employed to investigate the plight of rural women. This is not
surprising because rural crime in general has ranked among the least studied problems in
criminology throughout the twentieth century (Donnermeyer 2012).

NCVS data are gathered using a rotating, stratified, multistage cluster design fielded at a sample
of housing units and group quarters in the US and the District of Columbia (Hubble 1995;
Rennison and Rand 2007). All people aged 12 or older in the sampled household are
interviewed every six months for a total of seven interviews. Interviews are conducted in
person and over the phone. Given the design, NCVS data are representative of the
noninstitutionalised US population of persons aged 12 or older (Bachman 2000; Rennison et al. 2012). One of the most unique features of the NCVS is that it is currently the only national victimization survey that collects non-lethal violence against women statistics over a lengthy time period (Xie et al. 2012).

Sample
Our research focuses on a sample of women aged 12 or older who had experienced intimate violence between 1993 and 2010. The violent crimes examined were attempted and completed rape, sexual assault, robbery and assault (both aggravated and simple). The time period studied reflects all NCVS data available following a major series-breaking redesign implemented in 1992. Numerous changes were made at that time, including modifying the survey instruments (for example, screener questions, new crimes added, improved cues), changing protocols regarding measurement of certain types of victimization (for example, series victimizations), and several cost-saving changes. The intent and net effect of the redesign was to markedly improve the survey's measurement of victimization in general with the difficult-to-measure crimes such as rape, sexual assault and family violence especially targeted. Not surprisingly, the redesign resulted in higher rates of violence against women (Bachman 2000; DeKeseredy et al. in press; Rand, Lynch and Cantor 1997). Further, the redesign uncovered responses which pointed to crimes not reported to the police being underestimated to a greater extent than crimes reported to the police (Kindermann, Lynch and Cantor 1997).

Since redesigned survey data are collected using a different screening strategy, post-redesign data are not comparable to pre-redesign statistics (Rennison and Rand 2007). The NCVS sample continues to be characterised by high response rates, though these rates have declined slightly over time. During 2010, 92.3 per cent of sampled households and 87.5 per cent of individuals completed the survey (Truman 2011). This resulted in data gathered from 73,283 individuals in 40,974 households (each interviewed twice during the year) in 2010.

To address our stated goal, several adjustments to the data set were made. First, since our analysis focuses on female victims, male victims were removed from the working data file. Second, because we focus on male-perpetrated intimate violence, violent acts committed by a female (or females) and violence committed by someone other than an intimate (that is, current or former spouse, boyfriend) were removed from the data. Third, we were interested in violence against divorced/separated females. Thus, married, widowed and never married females were excluded. Fourth, although the NCVS gathers information on persons aged 12 and older, our analyses are restricted to victims aged 16 and older. This restriction stems from the inclusion of an employment variable which is asked only of persons aged 16 and older. And, finally, we excluded American Indian (n=17), Asian (n=14) and multiple race (n=23) female victims due to their small numbers. We could have retained these women and created an ‘other’ category but decided against this as this group aggregates the highest rate race (American Indian) and lowest rate race (Asian) for victimization into a category that describes none of the components well. Following these adjustments, the working data file includes 1,854 (unweighted) intimate victimizations against divorced/separated women aged 16 and older.

Measures
Geographic area
We examined separation/divorce intimate violence against women in urban, suburban, and rural places. These geographic areas are determined by the US Office of Management and Budget (OMB) and are based on Metropolitan Areas (MA). OMB classifies areas into three groupings based on their relationship to a MA: Central city, Outside central city, and Nonmetropolitan area. In line with extant research focused on geographic areas using data collected by federal statistical agencies, we utilise the more common language of urban, suburban, and rural areas (see, for example, Duhart 2000).
Marital status
Again, our analyses were restricted to divorce/separated females. Respondents describe their marital status (choosing from five categories: married, never married, divorced, separated, and widowed) at the time of the interview. This means that a respondent’s marital status may have differed at the time of the victimization. This study does not (and cannot) discern whether respondents’ marital status changed between the time of the victimization and the subsequent survey.

Age
Age is strongly associated with violence against women and other types of crime in the US, Canada, and throughout the world (Catalano 2012; Gosselin 2010; Johnson and Dawson 2011; Klaus and Rennison 2002; Rennison and Welchans 2003; Tjaden and Thoennes 2000). In fact, research consistently shows that younger women are most at risk of being assaulted by male intimates (Campbell et al. 2011; Catalano 2012). As one ages, risk of victimization decreases. In addition, age distributions differ across urban, suburban and rural areas. In general, findings show that rural areas are populated by a larger proportion of residents aged 65 or older, and a smaller proportion of residents aged 15 to 44 (Larson and Norris n.d.). Because of these differences, it is important to account for age in the analyses. Therefore, we included age of the victim measured in years in our analyses. Victim’s age is based on the age at the time of the interview and may have been different at the time of the victimization. Victim ages ranged from 16 to 90 years of age. Respondents 90 or older are coded as 90 in the NCVS.

Race/Hispanic origin
Race/Hispanic origin is another important correlate of violence against women. A large body of research indicates that rates of intimate violence are higher for minority females than for non-Hispanic, white females (Basile and Black 2011; Catalano 2012; DeKeseredy and Schwartz 2014; Rennison 2001a, 2001b; Rennison and Welchans 2003; Tjaden and Thoennes 2000). The NCVS currently measures race and Hispanic origin using a wide variety of categories based on the respondents’ descriptions. We use a set of three dummy variables to account for race/Hispanic origin in our analyses: Non-Hispanic white, non-Hispanic black, and Hispanic (any race). Non-Hispanic white serves as the excluded reference group. For convenience and following DeKeseredy et al.’s (in press) use of the NCVS to study urban, rural, and suburban differences in the relationship between race/Hispanic origin and violence against women, we refer to these groups as: White, Black and Hispanic.

It is important to note that these measures and similar ones used in other large-scale US surveys of violence against women (for example, Black et al. 2011; Tjaden and Thoennes 2000) are subject to much criticism. For example, the above ‘pan-ethnic categories’ are treated as homogenous groups but, in reality, include ‘diverse subpopulations that have very distinct ethnic, religious, historical, philosophical and social values that may have important roles in the dynamics’ of violence against women (Perilla et al. 2011: 205). Obviously, not all black people are the same and there are differences in rates of violence among African-Americans, African-Caribbeans and Africans. The same can be said about violence among other ethnic groups such as those designated as ‘American Indian/Native Alaskan’ (Aldarondo and Castro-Fernandez 2011; Aldarondo and Fernandez 2008). It appears that the National Alcohol and Family Violence Survey is the only major US survey specifically designed to overcome or minimise these limitations. Hopefully, other large-scale studies will follow suit (Aldarondo, Kaufman-Kantor and Jasinski 2002; Kaufman-Kantor, Jasinski and Aldarondo 1994).

Series victimization
The NCVS uses characteristics of a victimization to determine the type of crime that occurred. For many crimes that are discrete in nature (that is, one-time events) this approach works well. At times, respondents experience a series of victimizations that are so similar in nature or occur
so often that respondents are unable to provide details of each victimization. Because details of the victimizations are required to classify an event as a crime or non-crime and to classify crimes into types of crime, this is problematic. There is no agreement as to the best method to account for series victimizations and the literature identifies the limitations of several methods currently used (see for example, Rand and Rennison 2005; Tjaden and Thoennes 2000). To account for series victimizations in this report, a relatively new protocol described by Lauritsen et al. (2012) is used. This protocol enumerates series victimizations based on the victim’s estimate of the number of times the victimizations occurred during the six month reference period, with a maximum of 10 victimizations per interview.

There is no literature identifying differences in series victimization across urban, suburban and rural areas. Still, given the variation in contexts in terms of patriarchy and resources available to female victims across geographic region, it is plausible that series may be a larger issue in rural areas. To account for this possibility, we included a binary variable in our research where 1 = series victimization and 0 = not a series victimization.

Children in the household
Often, separated/divorced women and women trying to separate/divorce are not the only ones injured by their current or former partners. For example, 19 per cent of DeKeseredy and Schwartz’s (2009) 43 rural respondents stated that their partners abused their children. It is also estimated that an abusive man is seven times more likely to physically assault children (Bancroft 2002; Davies and Lyon 1998; Straus 1983). As well, Lauritsen and Schaum (2004) found that the presence of children in the home of unmarried women significantly increased the risk of intimate violence to the woman. While no research examines the differential role of children in the home on urban, suburban and rural woman violence, given the differences in context across geographic areas in conjunction with these findings, we speculate that rural separated/divorced women with children are more likely to be intimately assaulted than separated/divorced women in urban and suburban areas. To account for this correlate in our analyses, we included a dichotomous variable indicating if there were minors living in the household in which 1 = children in the household and 0 = no children in the household.

Employment
Poverty and high rates of unemployment are major characteristics of many rural US communities (Basile and Black 2011). As well, unemployment is a more serious problem in rural counties than it is in urban and suburban ones (Farmgateblog.com 2011; McBride and Kemper 2009). High levels of unemployment have a major effect on violence against rural women, as they do on violence against urban women. (DeKeseredy et al. 2003; Renzetti 2011). For example, as DeKeseredy and Schwartz (2009) and DeKeseredy et al. (2007) among others (including Basile and Black 2011; Websdale 1998) point out, there are more traditional gender roles in rural communities. Nonetheless, many rural women seek employment or jobs when their husbands become unemployed or when their farms become less profitable, a key factor that has the potential for weakening the overall power of men (Albrecht, Albrecht and Albrecht 2000; Lasley et al. 1995; Lobao and Meyer 2001). This transition in the arena of employment often generates marital instability because many economically displaced males who cannot meet their perceived responsibilities as the man of the household feel deprived of intimate and social support resources that give them self-worth (DeKeseredy and Schwartz 2009; Harris and Bologh 1985). A sizeable portion of unemployed rural men who strongly adhere to the ideology of familial patriarchy compensates for their lack of economic power by exerting more control over their wives (DeKeseredy et al. 2007; Sherman 2005), a problem that can influence these women to consider leaving or to exit their marriages and consequently put them at greater risk of being beaten, raped or killed (Rennison et al. 2012). We hypothesise, then, that unemployment will play a greater role in the abuse of rural separated/divorced women than it does for separated/divorced urban and suburban women.
In the NCVS, each respondent aged 16 or older is asked whether they had a job in the prior six months reference period. The NCVS defines a job as full-time or part-time work for pay, wages, salary, commission, tips or payment ‘in kind’. It also includes work that is done without pay on a family farm or for a family business. One can work at a job in a private business, government agency or as a self-employed individual. A job in the NCVS does not include unpaid volunteer work. In our research, this variable is included using a dichotomy where 1 = employed in the last six months and 0 = not employed in the last six months.

Educational attainment
Low educational attainment is a key risk factor for violence against women (Macmillan and Kruttschnitt 2005). Research finds that individuals in rural settings are less likely than their urban counterparts to earn a four-year college degree due to lower socioeconomic status that characterises rural areas (Byun, Meece and Irvin 2011). And those in rural areas who achieve a higher level of education are more likely to move away due to the eroding economic base that characterises many rural places today (Weisheit et al. 2006). Even so, it is unclear whether rural, urban, or suburban women’s educational levels put them at greater or less risk for separation/divorce assault. However, these findings indicate the need to control for educational attainment in our analyses. The NCVS asks respondents about the highest level of education completed. To operationalise this variable, a series of dummy variables are included in the analysis: less than high school degree; high school diploma or equivalent; college but no four year degree; and a four year degree. High school diploma or equivalent serves as the reference category in the analyses.

Non-lethal violence
This variable includes attempted and completed rape/sexual assault, robbery, aggravated assault and simple assault. In the NCVS, neither the victim, field representative nor the researcher determines that a crime occurred or identifies the type of crime committed. Rather, using a variety of incident characteristics, a computer algorithm makes both of these determinations. Additionally, standard NCVS definitions of violent victimization are employed. For example, rape, including heterosexual and same-sex rape as well as rapes committed against males and females, is defined as forced sexual intercourse that includes psychological coercion and physical force. Attempted rape includes verbal threats of rape. Sexual assault is distinct from rape and attempted rape in the NCVS and consists of incidents involving attacks or attempted attacks generally associated with unwanted sexual contact between victims and offenders. Sexual assaults may or may not involve force and includes such behaviors as grabbing, fondling and verbal threats.

Robbery constitutes property or cash taken directly from a person by use or threat of force, with or without a weapon, and with or without injury. Robbery is not commonly examined in studies of intimate violence against women but robbery and burglary often accompany stranger rape (Scully and Marolla 2005). Further, a growing body of knowledge on the economic abuse of women shows that many men coerce their female partners to hand them their pay cheques so that they will not have any money for themselves (Adams et al. 2008; Hofeller 1982). As well, some prior studies of geographic and other variations in violence against women that used NCVS data also combined robbery with the above harms (DeKeseredy et al. in press; Rennison et al. in press).

In the multivariate model, binary variables were created for each of the four types of nonfatal violence. Simple assault serves as the excluded reference category.

Analytic strategy
We sought to identify if and how female victims differ on established intimate victimization characteristics across urban, suburban and rural areas. Therefore, the geographic region (that
is, urban, suburban and rural) in which the victim resides is our dependent variable. While the use of geographic area as a dependent variable may appear unusual, this method follows an approach used in fields such as taxonomy and biology and, increasingly, in criminological research. This strategy does not treat geographic region as a dependent variable in the classic causal sense (see Harrell 2001 for more information). An alternative approach would be to conduct an extensive series of t-tests or chi-square tests to ascertain a relationship between urban, suburban and rural victimizations across the variables. However, this approach is problematic. First, it does not allow one to control for other identified correlates. For example, a test to identify a relationship between age and geographic area would not control for race, employment status, educational attainment, and so on. A second limitation of using an extensive series of t-tests or chi-square tests is that this technique cannot correct for the capitalisation of chance. In other words, several comparisons in these bivariate tests would falsely indicate significant relationships that were due to chance alone.

Given our dependent variable is measured using three non-ordered categories, we use multinomial logistic regression for our analysis. As indicated in Table 1, our variables have minimal missing data: therefore, we used complete case analysis (Allison 2002). Because the NCVS data come from a complex sample survey, it is not appropriate to use estimation techniques that assume simple random sampling. Such an approach could underestimate the standard errors and result in incorrect inferences about statistical significance. Therefore, the following multinomial logistic regression analyses use Taylor series linearisation to account for the complex sample design which allows for accurate significance testing of the coefficients (Levy and Lemeshow 1999). One drawback with adjusting for the complex sampling is that traditional goodness-of-fit diagnostics cannot be estimated for these models (Hosmer and Lemeshow 2000). As such, these statistics are not reported for the NCVS models. The NCVS analyses presented utilise the appropriate weights found on the data files.

Results

Before presenting our results, it is first necessary to describe our sample (refer to Table 1).

Table 1: Descriptives – age 16+; female victims (n=1,854)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Percentages</th>
<th>Variables</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variable</strong></td>
<td></td>
<td><strong>Children in Household</strong></td>
<td></td>
</tr>
<tr>
<td>MSA</td>
<td></td>
<td>Yes</td>
<td>75.6</td>
</tr>
<tr>
<td>Urban</td>
<td>28.3</td>
<td>No</td>
<td>24.4</td>
</tr>
<tr>
<td>Suburban</td>
<td>50.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>21.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>Mean = 34.1</td>
<td><strong>Employment during last six months?</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD = 9.0</td>
<td>Yes</td>
<td>69.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>30.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Missing data</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Race/Hispanic Origin</strong></td>
<td></td>
<td><strong>Educational Attainment</strong></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>82.5</td>
<td>Less than high school</td>
<td>17.3</td>
</tr>
<tr>
<td>Black</td>
<td>8.0</td>
<td>High school</td>
<td>37.4</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8.9</td>
<td>College without completing a Bachelors degree</td>
<td>34.9</td>
</tr>
<tr>
<td>Missing data</td>
<td>0.6</td>
<td>Bachelor degree or greater</td>
<td>10.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Missing data</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Series Victimizations</strong></td>
<td></td>
<td><strong>Type of Violence</strong></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>51.4</td>
<td>Rape &amp; Sexual Assault</td>
<td>9.3</td>
</tr>
<tr>
<td>Yes</td>
<td>48.6</td>
<td>Robbery</td>
<td>7.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aggravated Assault</td>
<td>15.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Simple Assault</td>
<td>68.0</td>
</tr>
</tbody>
</table>
Half the victims resided in a suburban area, 28.3 per cent in an urban community, and 21.7 per cent in a rural place. While the bulk of criminological research is urban based, our sample demonstrates that a large proportion of separated/divorce assaults takes place in rural contexts. The mean age of those victimized was 34, and the majority (82.5 per cent) were white. About half (51.4 per cent) of the assaults examined were part of a serial victimization and three-quarters (75.6 per cent) were committed against women who have children in their homes.

Table 2 presents data from survey-weighted multinomial logistic regressions.

Table 2: Multinomial logistic regression findings (n=1,827)

<table>
<thead>
<tr>
<th></th>
<th>Panel A - Urban and Rural Comparison (Rural as reference)</th>
<th>Panel B - Suburban and Rural Comparison (Rural as reference)</th>
<th>Panel C - Urban and Suburban Comparison (Suburban as reference)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RRR</td>
<td>b</td>
<td>SE</td>
</tr>
<tr>
<td>Age</td>
<td>0.99</td>
<td>-0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>Black</td>
<td>2.78</td>
<td>1.02</td>
<td>0.46*</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8.50</td>
<td>2.14</td>
<td>0.43*</td>
</tr>
<tr>
<td>Serial victim</td>
<td>0.89</td>
<td>-0.11</td>
<td>0.25</td>
</tr>
<tr>
<td>Children in the household</td>
<td>0.78</td>
<td>-0.25</td>
<td>0.32</td>
</tr>
<tr>
<td>Employed in last six months</td>
<td>1.14</td>
<td>0.13</td>
<td>0.30</td>
</tr>
<tr>
<td>Less than high school</td>
<td>1.01</td>
<td>0.01</td>
<td>0.37</td>
</tr>
<tr>
<td>College without completing a Bachelor degree</td>
<td>1.33</td>
<td>0.29</td>
<td>0.30</td>
</tr>
<tr>
<td>Bachelor degree or greater</td>
<td>3.91</td>
<td>1.36</td>
<td>0.39</td>
</tr>
<tr>
<td>Rape/Sexual Assault</td>
<td>0.86</td>
<td>-0.15</td>
<td>0.47</td>
</tr>
<tr>
<td>Robbery</td>
<td>1.55</td>
<td>0.44</td>
<td>0.43</td>
</tr>
<tr>
<td>Aggravated Assault</td>
<td>0.91</td>
<td>-0.09</td>
<td>0.40</td>
</tr>
<tr>
<td>Constant</td>
<td>0.26</td>
<td>0.87</td>
<td>0.87</td>
</tr>
</tbody>
</table>
Panels A and B offer estimates based on the reference category (that is, base outcome) of ‘rural’. Panel C offers estimates based on the reference category of ‘suburban’. Panel A presents findings from an urban versus rural comparison. Panel B presents results from a suburban versus rural estimation, and Panel C offers estimates when comparing urban to suburban (suburban is the base outcome).

Several coefficients are presented in Table 2. First the relative risk ratios (RRR) are presented in the first column. These ratios are calculated by exponentiating the multinomial logit coefficients (b). RRRs for a group (for example, urban in Panel A) are interpreted as indicating, for a one unit change in the predictor variable considered, the extent to which that group’s (per cent) variable value relative to the referent group (rural in Panels A and B) is expected to change, holding all other variables in the model constant. The second column offers the regression coefficients while the third column in each panel is the standard error. Finally, the fourth column indicates the p-value. P-values less than 0.05 are considered significant in our analyses.

Turning first to Panel A in Table 2, our results show three significant differences in characteristics between divorced/separated female victims residing in urban versus rural areas. Contrary to expectations, all three findings point to a greater relative risk for urban versus rural females. Results indicate that, for black relative to white female victims, the risk for living in an urban area relative to a rural area increases by a factor of 2.78, given the other variables in the model are held constant. For Hispanic relative to white females, the risk for living in an urban area relative to a rural area increases by a factor of 8.50, given the other variables in the model are held constant. And finally, victims with a bachelor’s degree or greater (compared to high school diploma or equivalent) were greater than three and a half times more likely to live in an urban versus rural area (RRR = 3.91).

Panel B offers findings from a comparison of suburban and rural woman abuse victims. Three of the four significant variables point to a greater likelihood that victims live in suburban versus rural areas. The data show that relative risks in this comparison differ from findings comparing urban to rural. First, for Hispanic victims (compared to white), the likelihood that the victim lives in a suburban (versus rural) context increases by 2.72, holding all other variables in the model constant. Second, similar to findings in Panel A, results indicate an RRR of 3.86 for bachelor’s degree or greater (compared to high school diploma or equivalent). This demonstrates that violence against a college graduate (relative to a high school graduate) is 3.86 times more likely for those living in suburban versus rural areas. Third, results show that, for employed female victims (compared to unemployed), the likelihood that they live in a suburban (versus rural) context increases by 1.71, holding all other variables in the model constant. The final significant variable pointed toward greater risk in rural areas. Specifically, violence against women with less than a high school education (relative to a high school graduate) is 0.47 times less likely for those living in suburban versus rural areas.

Panel C presents findings comparing victims in urban and suburban areas. Three of the four significant variables indicate a greater likelihood that woman abuse victims live in urban compared to suburban areas. First and second, Hispanic and Black woman abuse victims (compared to white), are far more likely to live in an urban (versus suburban) area (RRR = 3.13 and 6.38, respectively). Third, victims with less than a high school education (relative to a high school graduate) are 2.14 times more likely to live in an urban compared to a suburban area. The fourth difference concerns women with children in the household. Victims living with children in the household (compared to no children in the household) are about half as likely to be living in an urban versus suburban areas (RRR = 0.52).

The results of our analyses show some significant differences in characteristics of female victims of woman abuse across geographic regions. Six variables (black, Hispanic, less than high school, bachelor’s degree or greater, employment, and children in the house) differentiated
victims across geographic region. In all but two cases, differences pointed to a lower likelihood that the victim would live in a rural area (less than high school for suburban versus rural; children in the household for urban versus suburban).

What accounts for these results? Perhaps one key difference has much to do with the fact that substantially larger numbers of members of two very high risk groups of women – blacks and Hispanics – live in metropolitan places. These women typically have other sociodemographic characteristics that are strongly associated with violent victimization such as higher rates of poverty and lower income (Basile and Black 2011). Certainly, race/ethnicity alone cannot account for the variations we uncovered.

As stated before, education and intimate violence are related. Our findings indicate that abused women with less than a high school diploma are more likely to live in an urban or a rural environment – but not a suburban environment. And, woman abuse victims with a four-year degree or more are more likely to live in an urban and suburban – but not a rural setting. It is unclear what accounts for these differences but several studies show that many men find women’s educational and labor market gains threatening and the ‘narrowing of the male-female status gap’ results in violence as a form of backlash (LaFree and Hunnicutt 2006; Russell 1975; Xie et al. 2012: 106). Why this effect is found in some areas and not others and reasons for the differential effect of lower levels of education across areas require greater attention. This may be due to the fact that educational attainment levels are lower in rural communities than in suburban ones (Council of Economic Advisors 2012).

Employment was found to differentiate woman abuse victims. For example, an employed victim of woman abuse was more likely to live in a suburban versus a rural area. Or, stated differently, an unemployed victim is more likely to live in a rural setting. This finding may reflect the lack of employment opportunities in rural areas and the loss of employment in a family business or on a family farm following the dissolution of a marriage.

The final significant variable was children in the home. Woman abuse victims with children in the home were more likely to live in suburban than urban areas.

Clearly, there are more similarities than differences among woman abuse victims living in urban, suburban and rural areas. In other words, the data suggest that the demographic profile of woman abuse victims is similar across geographic regions. While 11 out of 36 comparisons indicated significant differences in victims across areas, 25 of the comparisons did not. Table 3 offers a visual summary of these comparisons. The shaded RRR indicate significant variables from each model. The non-shaded boxes indicate a lack of significance.

This table shows that for no comparison was type of violence, serial victimization, or some college education a significant predictor of geographic region. The lack of significance found for type of violence may be based on low variability as most non-lethal violence comes in the form of simple assault. Additional research is needed to understand the lack of influence in series victimizations on geographic regions. It may be that differences exist across regions but that victims are less likely to reveal the nature of their victimization in one region compared to another. This research highlights the complex relationship between several variables and geographic area. One example is educational attainment. Findings show how a four-year degree or greater and less than a high school education is related to geographic area. Yet having some college education is not a significant predictor of geographic region. Additional research is clearly needed to help unravel this relationship.
Table 3: Similarities and differences across geographic area

<table>
<thead>
<tr>
<th>Characteristic/type of violence</th>
<th>Urban and Rural Comparison</th>
<th>Suburban and Rural Comparison</th>
<th>Urban and Suburban Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.99</td>
<td>1.01</td>
<td>0.98</td>
</tr>
<tr>
<td>Black</td>
<td>2.78 (0.44)</td>
<td>6.38 (0.44)</td>
<td>3.13 (0.44)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8.50 (2.72)</td>
<td>3.13 (2.72)</td>
<td>1.01</td>
</tr>
<tr>
<td>Serial victim</td>
<td>0.89</td>
<td>1.14</td>
<td>0.79</td>
</tr>
<tr>
<td>Children in the household</td>
<td>0.78</td>
<td>1.51</td>
<td>0.52</td>
</tr>
<tr>
<td>Employed in last six months</td>
<td>1.14</td>
<td>1.71 (0.47)</td>
<td>0.66</td>
</tr>
<tr>
<td>Less than high school</td>
<td>1.01</td>
<td>0.47</td>
<td>2.14</td>
</tr>
<tr>
<td>College without completing a Bachelors degree</td>
<td>1.33</td>
<td>0.97</td>
<td>1.38</td>
</tr>
<tr>
<td>Bachelor degree or greater</td>
<td>3.91 (3.86)</td>
<td>1.01</td>
<td></td>
</tr>
<tr>
<td>Rape/Sexual Assault</td>
<td>0.86</td>
<td>0.95</td>
<td>0.91</td>
</tr>
<tr>
<td>Robbery</td>
<td>1.55</td>
<td>1.43</td>
<td>1.08</td>
</tr>
<tr>
<td>Aggravated Assault</td>
<td>0.91</td>
<td>1.24</td>
<td>0.74</td>
</tr>
</tbody>
</table>

A second example is children in the household. Woman abuse victims with children in their homes are more likely to be in suburban versus urban areas. Still, this variable does not differentiate between urban and rural, nor does it differentiate between suburban and rural woman abuse victims. What accounts for this? Similar questions are raised when considering findings for employment.

Conclusion

Certainly, this study adds to the growing body of social scientific work on geographic variations in separation/divorce assault but it also raises some important questions. Furthermore, like all research, our project has limitations that warrant brief attention here. One salient problem is the use of three crude categories to operationalise geographic areas: urban, suburban and rural. While this technique allows for comparisons with previous research on regional variations in separation/divorce assault (for example, Rennison et al. 2012), it masks significant differences within these geographic areas. This pitfall, of course, is endemic to most large-scale US victimization surveys and needs to be overcome in the near future because not all rural places are the same and this is also true for suburban and urban communities.

Failure to disclose is another problem with many, if not all, crime surveys such as the NCVS. One disclosure issue specific to the NCVS is related to widespread distrust of the federal government in rural US areas (DeKeseredy and Schwartz 2009). For example, NCVS data are collected by employees of the US Census Bureau and thus many respondents may be reluctant to reveal sensitive information to them. Moreover, the NCVS is presented in the context of a ‘crime survey’ and, unless women clearly label hurtful behaviors as ‘criminal’ in their minds, they tend not to report them on a survey of criminal behavior. In fact, many women who experience what the law defines as rape do not label their assaults as such or even as a form of victimization (DeKeseredy and Schwarz 2011; Schwartz 2000). On the one hand, when surveys are not operated in the context of criminal assault and victimization, there are major reporting differences (Fisher 2009). Mihalic and Elliot (1997) found that up to 83 per cent of the marital violence incidents reported in surveys of family behavior are not reported in contexts where the emphasis in on criminal assault and victimization. On the other hand, most large-scale surveys that are not contextualised as crime surveys elicit much higher figures (DeKeseredy 2011).

Two important correlates are missing from our analyses. One that clearly stands out is stalking. Stalking is ‘the willful, repeated, and malicious following, harassing, or threatening of another person’ (Melton 2007a: 4); it involves a variety of fear-inducing behaviors such as unwanted
phone calls and emails, showing up at a woman's home when such a 'visit' is unwanted, and sneaking into a person's home or car to let her know that the offender was there (Black et al. 2011). We often hear of the stalking experiences of movie stars and other celebrities but most stalking quietly occurs in our own neighborhoods and typically involves men targeting current or former intimate female partners (Black et al. 2011; Logan et al. 2006; Klein and Hart 2012). Stalking is also strongly correlated with physical and psychological abuse and it escalates when women leave their male partners (Mechanic et al. 2000; Mechanic, Weaver and Resick 2000; Melton 2007b). While the NCVS recently added a series of stalking and harassment questions on a supplement fielded for six months, there are too few cases to include this important correlate in our analyses. Future research should consider this concept to determine if survivors of separation/divorce assault are more likely to be stalked in rural, suburban, or urban areas.

Pregnancy is the other important variable missing from our analysis. The NCVS started measuring victims' pregnancy status (females aged 18 to 50) in June of 2005. We tried to use this variable but too few cases resulted in failed regression models. This is unfortunate because the research community still does not know for sure whether pregnant women are at higher or lower risk of being physically abused by men than women who are not pregnant (Campbell et al. 2011). Also, the literature on such violence during pregnancy shows that women who were beaten during pregnancy were also assaulted before they were pregnant (Basile and Black 2011; Jasinski 2004). Are pregnant separated/divorced women more likely to be abused than pregnant married women and are pregnant rural separated/divorced women at higher risk than their urban and suburban counterparts? To the best of our knowledge, there were no conclusive answers to these questions at the time of writing this article. Nevertheless, DeKeseredy and Schwartz's (2009) qualitative study of separation/divorce sexual assault in rural Ohio suggests that exiting and/or attempting to exit a patriarchal abusive relationship may be especially dangerous for women.

Tanya, for instance, is one woman they interviewed who was pregnant and raped during the process of leaving her male partner:

He did it because I was his and he felt he could. And it was his way of letting me know that, ah, first of all, of letting me know that I was his. And secondly, letting me know that um, that I wasn't safe anywhere. And I, when we were together, when he had forced me to go back together with him, ah, he, ah ... raped me as another form of, of possession. And I think also as a reminder of what could happen. And ultimately, at one point, I believed that he raped me as part of his means of killing my unborn child. (DeKeseredy and Schwartz 2009: 72)

Research on geographic differences in separation/divorce assault is still in a state of infancy and many more empirical questions need to be answered and probably will be in the coming years. As well, it is time to start developing and testing theories of woman abuse in rural communities. To date, only two perspectives have been crafted and exploratory research provides some empirical support for these integrated offerings (see DeKeseredy and Schwartz 2009; DeKeseredy et al. 2007). Moreover, it is time to develop self-report surveys of male violence against women in rural areas because data from men are required to more precisely determine what motivates them to be abusive (DeKeseredy, Rogness and Schwartz 2004).

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However, in this postmodern era, rural communities are much less autonomous than before (Scott et al. 2007). The standardization of education, along with other factors such as new means of electronic communication, have removed some of the unique features of rural culture and narrowed the difference between rural and urban lifestyles (DeKeseredy, Muzzatti and Donnermeyer, 2012; DeKeseredy and Schwartz, 2009; Ritzer, 2013).

The NCVS data file comes with weight variables that, when used, offer NCVS data which are representative of all persons aged 12 or older not in institutions or homeless. The Census Bureau, the agency that collects the NCVS, generates these weights based on decennial census information. It is important that users weight the data because it corrects for nonresponse, sampling error and clustering due to the sample design.

Contrary to International Journal of Criminal Justice guidelines, the American rather than British English spelling for ‘victimization’ is used throughout this article in recognition of the topic and source.

The women in the sample self-described as divorced or separated and may have included references to de facto relationships.


References


Walter S deKeseredy and Callie Marie Rennison: Comparing Female Victims of Separation/Divorce Assault


