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# Rural Differences in Victim Vulnerability and Re-Victimization of Intimate Partner Violence

## Abstract

The aim of this study was to examine the association between the victim vulnerability factors included in the intimate partner violence (IPV) risk assessment tool used by the Swedish police (Brief Spousal Assault Form for the Evaluation of Risk [B-SAFER]) and rates of IPV re-victimization among female victims living in rural towns, in the countryside, or in remote areas. This study also aimed to examine the interaction between rurality and IPV re-victimization in relation to victim vulnerability. The sample consisted of 695 cases of male-to-female perpetrated IPV, which had been reported to the Swedish police and subjected to a B-SAFER assessment. Rates of re-victimization were examined in police registers. The results demonstrated that several vulnerability factors could discriminate between IPV re-victimization across rurality. There was also an interaction effect between rurality and IPV re-victimization in relation to the number of victim vulnerability factors present, where re-victimization was more common for victims with many vulnerability factors living in more sparsely populated areas.

**Keywords:** Rurality, interpersonal violence, female victims, police

Intimate partner violence (IPV) against women, herein defined as any acts of physical (including sexual), psychological, or economic violence committed by a current or former male partner (European Institute for Gender Equality [EIGE], 2021), is described as a global public health problem of pandemic proportions (Devries et al., 2013). As such, Devries et al. (2013) estimated that every third woman worldwide has ever experienced physical or sexual IPV. Corresponding figures in Sweden, where this study was conducted, amount to 25%

among women aged 16-79 years (National Council for Crime Prevention [NCCP], 2014). While it is important to note that both men and women can be victims and perpetrators of IPV, most perpetrators reported to the police are men and most victims are women (EIGE, 2019; NCCP, 2019). However, as illustrated in a national survey conducted in Sweden, very few women report their victimization to the police (NCCP, 2014). As such, only 4.9% of those women who were victimized during the recent year claimed that they had filed a police report.

Although IPV lacks geographical boundaries, research generally demonstrates higher rates of such violence in rural areas compared to in urban areas (e.g., Albright et al., 2020; Breiding et al., 2009; Edwards, 2015; Peek-Asa et al., 2011). Additionally, IPV in rural areas has been found to be more severe, chronic, and, to some extent, more lethal (Edwards, 2015; Logan et al., 2005; Peek-Asa et al., 2011; *masked for review*). Attempts to explain these findings have centered around the physical and social isolation inherent in living in more sparsely populated areas. For example, since crime victim support services (e.g., shelters, police, and social services) are less available and accessible, the physical and social isolation makes it more difficult for victims to disclose their victimization (e.g., Edwards, 2015). Meanwhile, the abovementioned isolation enables the perpetrator's unchallenged use of IPV (Schwab-Reese & Renner, 2017). Other explanations draw on the sociocultural context of more sparsely populated areas. As such, it has been argued that rural areas, in general, are characterized by lower socioeconomic status, a greater prevalence of patriarchal norms and attitudes (e.g., 'boys will be boys'), a sparser distribution of law enforcement as well as greater distrust in social agencies, and a higher prevalence of substance abuse (DeKeseredy & Rennison, 2020; Edwards, 2015). Thus, living in such a context can foster attitudes and perceptions about IPV that hinder victims from disclosing their victimization. This may include perceptions among victims that such disclosure is associated with feelings of personal

and collective (e.g., family) embarrassment (Edwards, 2015; Logan et al., 2005). Subsequently, this may lead to an acceptance of being victimized. This notion is supported by findings showing that acceptance of IPV is more common in rural areas, both in general (DeKeseredy & Rennison, 2020) and among victims and perpetrators (Schwab-Reese & Renner, 2017). In sum, the increased number of barriers to help-seeking experienced by IPV victims in rural areas might make them more vulnerable to this form of violence (DeKeseredy & Rennison, 2020; Logan et al., 2005; *masked for review*).

Relatedly, studies have also found that rates of re-victimization of IPV are higher in rural areas compared to in urban areas. For instance, Peek-Asa et al. (2011) found that the frequency of IPV differed between victims living in isolated rural areas and victims living in urban areas. More specifically, they reported that 61.5% of victims in isolated rural areas had experienced four or more acts of physical IPV in the past year, compared to 39.3% among victims living in urban areas. Moreover, Logan et al. (2005) found that victims in rural areas were almost three times more likely than victims living in urban areas to report that their ex-partner recidivated against them by frequently violating a restraining order.

In attempts to prevent IPV re-victimization, the police play a key role. To this end, they mainly rely on risk assessment instruments to assess and manage risk for IPV (Campbell et al., 2018). For obvious reasons such instruments have been developed with the perpetrators' risk factors in mind (e.g., violent attitudes, substance abuse, or mental health problems: Kropp et al., 2010). However, there has been a growing recognition that the risk for IPV re-victimization also can be influenced by a victim's behavioral, psychosocial, and situational vulnerabilities (Capaldi et al., 2012; Kuijpers et al., 2011; Kropp et al., 2010). Importantly, such studies have never intended to blame the victim for their victimization, and it is important to stress that the perpetrators always should be held responsible for their behavior. Instead, the identification of victim vulnerability factors is conducted to help the police to

determine the likelihood that the victim will engage in self-protective actions and, thus, adhere to the recommended risk management strategy (Kropp et al., 2010).

**Victim vulnerability factors within the B-SAFER**

Among the few IPV risk assessment instruments to have a specific focus on the assessment of victim-related factors is the Brief Spousal Assault Form for the Evaluation of Risk (B-SAFER: Kropp et al., 2010). This checklist was developed specifically for the police and is used by both the Swedish police and police internationally. In addition to assessing ten perpetrator risk factors, the B-SAFER requires the user to assess the presence of five victim vulnerability factors. These factors have been selected based on a systematic review of the empirical, clinical, and legal IPV re-victimization literature (Kropp et al., 2010).

The first victim vulnerability factor is 'inconsistent attitudes and behavior' (Kropp et al., 2010). As such, victims may for several reasons be ambivalent in separating from a violent partner. For instance, due to strong emotional bonds to the perpetrator or practical reasons such as having children together, the victim may minimize, justify, or excuse the perpetrator's use of violence (e.g., Estrallado & Loh, 2014; Henderson et al., 1997; Kropp et al., 2010). This vulnerability factor also reflects the tendency among victims of severe and chronic IPV to become normalized for the violence, thus being unable to detach themselves emotionally and physically from the perpetrator (Kropp et al., 2010).

The second victim vulnerability factor consists of the victim's 'extreme fear of the perpetrator', which can include fear for the victim's personal safety, as well as the safety and well-being of her children (Kropp et al., 2010). Importantly, in relation to risk for re-victimization, the fear among victims who experience threats of severe violence is most often substantiated as perpetrators who make such threats are more likely to re-victimize their partner (Belfrage & Strand 2008; Bell et al., 2008; Trujillo & Ross, 2008). In dealing with this fear victims of IPV use different coping strategies (Kropp et al., 2010). Some of these coping

strategies might be efficient in avoiding an imminent re-victimization but are inefficient in a long-term perspective. For example, returning to the perpetrator out of fear that the violence will otherwise escalate may prevent re-victimization temporarily. However, such a coping strategy may likely only delay the violence (Kropp et al., 2010; Logan & Walker, 2018). Additionally, victims who return to the perpetrator out of fear for their safety might encounter a societal response characterized by victim-blaming attitudes (e.g., Meyer, 2016). Previous research indicates that such a response to victims disclosing their victimization is more prevalent in rural areas, where stereotypical perceptions about gender roles are more prevailing (e.g., DeKeseredy & Rennison, 2020; Logan et al., 2005).

The third victim vulnerability factor is a victim's 'inadequate support or resources' and relates to the victim's knowledge, motivation, or ability to seek help (Kropp et al., 2010). Previous research supports the notion that this inadequacy might be exacerbated for victims living in rural areas. As previously mentioned, the limited availability of both formal (e.g., police and crime victim support services) and informal support (e.g., friends or family) associated with living in such areas likely makes these victims more vulnerable and more likely to be re-victimized than victims living in urban areas (e.g., Albright et al., 2020; Edwards, 2015; Peek-Asa et al., 2011). For example, Peek-Asa et al. (2011) found that the mean distance to the nearest IPV resource was three times greater for victims living in small rural or isolated areas compared to victims living in large rural towns or in urban areas. Furthermore, Logan et al. (2005) reported that a lack of resources to leave an abusive partner was perceived to be the main barrier for women to apply for a restraining order. As such, inadequate support or resources are often more common among victims living in more sparsely populated areas as they are more likely to be both socially and physically isolated. This may in turn explain why IPV victims in rural areas are subjected to more chronic and systematic violence (*masked for review*). Relatedly, in such isolated environments, a victim

may be less likely to be able to leave a violent partner. Thus, these victims are more likely to be assessed as having an 'unsafe living situation', which is the fourth vulnerability factor in the B-SAFER (Kropp et al., 2010). Thus, having access to the victim, such as living together, increases the risk for IPV.

Finally, IPV victims may have several 'health problems', such as problems with mental health, substance use, unemployment, or physical impairments (Kropp et al., 2010). These problems might often be a direct consequence of their victimization (e.g., substance abuse) and can make the victim more dependent on the perpetrator (e.g., for drugs or income: e.g., Pereira et al., 2020). Although unemployment is not a health problem per se, this can create psychosocial problems such as depression and stress (Kropp et al., 2010). This could therefore render victims unwilling to leave a violent relationship. Additionally, these problems may also be exacerbated by living in rural areas, which are generally characterized by a lack of available, accessible, and high-quality services for inhabitants in general (e.g., Edwards, 2015).

The inclusion of victim vulnerability factors in the B-SAFER has been welcomed by the police (Belfrage & Strand, 2008). As such, they perceived that such factors provided them with a more complete and holistic assessment of risk for IPV re-victimization. There is also some empirical evidence that more victim vulnerability factors present increases the risk for IPV re-victimization (Belfrage & Strand, 2008; Storey et al., 2014; *masked for review*). Drawing on the previous description of these vulnerability factors, it is likely that most of these may both be more prevalent as well as exacerbated by living in more sparsely populated areas.

**The Current Study**

Victims of IPV living in sparsely populated areas are generally a more vulnerable group, drawing on their limited access, availability, and quality of IPV services and support

(Albright et al., 2020; DeKeseredy & Rennison, 2020; Edwards, 2015; Peek-Asa et al., 2011). Such victims have also displayed a higher prevalence of victim vulnerability factors and are generally victimized by more severe and frequent forms of IPV compared to victims living in urban areas (Logan et al., 2005; Peek-Asa et al., 2011; *masked for review*). However, previous studies on IPV and geographic context have generally compared various aspects of IPV between urban and non-urban areas. Thereby, all settings that are non-urban are usually referred to as rural (e.g., Edwards, 2015; Logan et al., 2005). This is problematic for several reasons. Perhaps most importantly, this crude dichotomization most likely obscures the possible differences within a rural context. As such, Edwards (2015) concluded her review with a call for studies to examine within-rural differences more closely. To this end, both Peek-Asa et al. (2011) and DeKeseredy and Rennison (2020) demonstrated the complexity of examining rural areas as a single, homogeneous, geographical level of analysis. In their studies, they found several differences in prevalence, frequency, and severity of IPV between victims living in large rural towns, small rural towns, and isolated rural areas. Moreover, as concluded by previous authors (e.g., DeKeseredy & Rennison, 2020; Edwards 2015), studies of IPV in rural areas have mainly been conducted in the US, and more research in other geographical settings have therefore been encouraged.

Thus, this study sought to examine variations in terms of victim vulnerability factors of IPV and rates of re-victimization within a Swedish rural context. More specifically, such differences were examined in rural towns, countryside, and remote areas, which roughly corresponds to large rural towns, small rural areas, and isolated areas, respectively, studied in previous research (Peek-Asa et al., 2011). Such knowledge would provide a greater understanding of victim vulnerabilities and IPV re-victimization across levels of rurality and could ultimately help improve policing such violence in these areas. Moreover, this would also extend the knowledge of IPV and rurality outside of the US.

### Study Aim

The specific aim of this paper was to examine the association between the B-SAFER victim vulnerability factors and rates of re-victimization, among women who reported IPV victimization to the Swedish police across three levels of rurality (i.e., rural towns, countryside, and remote areas). Moreover, this paper also aimed to examine the interaction between levels of rurality and IPV re-victimization in relation to victim vulnerability.

## Method

Data for this study were drawn from a longitudinal research project (2009-2016) aiming to implement and evaluate the use of structured violence risk assessments for IPV, stalking, and honor-based violence in two Swedish police districts (*masked for review*). The research project was initiated with the two police districts since they did not, at the time, comply with the National Police Board's mandatory directives for using such assessments, and therefore requested assistance in the implementation and evaluation stages from the research team. The risk assessments were conducted by two specialized family violence units, one in each district. The police officers in these units were trained by the second author of this paper in risk assessment and risk management of IPV, using the B-SAFER. Thus, in each district, the same police officers conducted the risk assessments regardless of whether the victim was living in rural towns, in the countryside, or in remote areas. Both police districts are geographically situated in the north of Sweden. By the time of the data collection, the district of Jämtland had a population of 114 000 inhabitants and considered an overall remote area (with one rural town), whereas the district of Västernorrland with a population of 242 000 inhabitants is an overall rural area (including several rural towns and countryside: The Swedish Board of Agriculture, 2017). This project received ethical approval from the Swedish Ethical Review Authority.

### Sample

The sample consisted of 695 female victims of IPV, who reported their male partner to the police between 2011 and 2014 in any of the two police districts. The mean age of the sample was 36 years (*SD* = 12.6; Range = 14-83). Twenty-one percent of the victims had an immigrant background, and about half (48.8%) of all victims had children younger than 18 years living at home. Most police reports consisted of index crimes such as physical assault (45.3%), followed by severe violation of a woman's integrity (31.2%), illegal threats (13.2%), other crimes (3.9%), sexual assault (1.6%), and attempted murder/manslaughter (0.4%). Thirty (4.3%) cases were missing information about the reported crime. The crime of severe violation of a woman's integrity is unique for Swedish legislation, where male perpetrators who are found guilty of repeatedly committing crimes (i.e., on more than one occasion and towards the same woman) aimed at violating their female partner's integrity can be charged with this crime. The purpose of this crime is that the sentence should be more severe than if the offender had been convicted of each of the individual offenses that make up the crime of severe violation of a woman's integrity.

**Material**

The material consisted of risk assessments for IPV carried out by the police, using the Swedish version of B-SAFER (Kropp et al., 2010). The B-SAFER checklist consists of ten perpetrator risk factors and five victim vulnerability factors, where only the latter were included for analysis in this study. These vulnerability factors include inconsistent attitudes or behavior, extreme fear of the perpetrator, inadequate support or resources, unsafe living situation, and health problems. Furthermore, these factors are assessed on a three-point Likert scale as either present, partially present, or absent, based on police hearings with the victim and other investigation material. When conducting hearings with victims to assess the presence or absence of the vulnerability factors, the B-SAFER advises police officers to use their discretion in interpreting the victim's statements. For example, although the victim may

not explicitly state any health problems (e.g., substance abuse), this could be contradicted by information available from a forensic examination. As another example, if the victim justifies the partner's use of IPV or minimizes its impact, the police should assess the victim as displaying inconsistent attitudes or behavior. Finally, based on the presence of vulnerability factors in the B-SAFER, the police officer makes a summary risk rating for the risk of IPV re-victimization as either being low, moderate, or high (Kropp et al., 2010). Importantly, being based on the structural professional judgment (SPJ) approach to violence risk assessment, the summary risk rating in the B-SAFER is not calculated algorithmically. Instead, the summary risk is generated by the evaluator's professional discretion and expertise of IPV (Kropp et al., 2010). Thus, the B-SAFER factors are intended to aid in this rating procedure, not to be summed up into a numerical score.

Since being based on the SPJ approach to violence risk assessment, the B-SAFER aims to help in decision-making regarding adequate risk management for the perpetrator as well as regarding adequate support and protective actions for the victim (Kropp et al., 2010). Although one study has shown this to work poorly (Svalin et al., 2018), several studies have concluded that the B-SAFER is a useful tool for both the Swedish police (e.g., Belfrage & Strand, 2008), as well as for police internationally (Kropp et al., 2010). The B-SAFER is reported to have good-to-excellent interrater reliability and predictive validity (e.g., Serie et al., 2017; Storey et al., 2014), as well as showing good concurrent and construct validity (Au et al., 2008). However, less research has been conducted specifically on the validity and reliability of the B-SAFER vulnerability factors. Nevertheless, these factors have been selected based on systematic literature reviews (Kropp et al., 2010). Moreover, two studies have reported that these vulnerability factors correlated positively with the summary risk ratings made by the police officers (Belfrage & Strand, 2008; Storey & Strand, 2017). As such, victims who displayed more vulnerability factors were generally assessed with a higher

summary risk rating for IPV re-victimization. Furthermore, Storey and Strand (2017) also found that victims who displayed more vulnerability factors were more likely to be recommended a greater number of protective measures by the police. In relation to reliability measures, an acceptable score of internal consistency (Cronbach's alpha = .72) of the vulnerability factors in the B-SAFER was reported by Storey and Strand (2017). Most research that has been conducted on the B-SAFER vulnerability factors involve real life IPV cases, where police officers have conducted the assessments as part of their daily work. Thus, measuring interrater reliability (i.e., obtaining second independent ratings for all cases) is rarely feasible in such studies (Storey & Strand, 2017). However, all police officers in this study had received the same training (by the second author) in risk assessment and management of IPV.

Information regarding IPV re-victimization was retrieved from the Swedish police's national database, containing both convictions as well as suspicions of crimes. Thus, in this study, IPV re-victimization was defined as any new police reports or convictions of crimes, where the woman was designated as the victim and her current or former partner was the perpetrator or suspect. This included both physical violence (e.g., physical, or sexual assault) and non-physical violence (e.g., illegal threats, harassment, or destruction of property). The follow-up period consisted of the time from the first reported IPV crime (i.e., during the project's data collection period of 2011-2014) until the final follow-up examination in 2015, where the mean follow-up time for the whole sample was 28 (*SD* = 11.0, *Range* = 5-50) months.

**Procedure**

The IPV risk assessments analyzed in this study were conducted after the police report had been filed by the victim. IPV cases reported to the police in the two police districts between 2011 and 2014 were subjected to a four-step process regarding risk assessment. First,

demographical information about the victim and the perpetrator was collected. The second and third steps involved assessing the perpetrator's risk factors and the victim's vulnerability factors in the B-SAFER, respectively. Fourth, the summary risk rating for IPV re-victimization was assessed by the police as either low, moderate, or high risk.

### *Rurality*

There is no internationally agreed-upon definition of rurality as this varies between studies and countries. In this study, the victim's place of residence was categorized as a rural town, countryside, or remote. As previously mentioned, the Västernorrland and Jämtland police districts are categorized as rural and remote areas, respectively (The Swedish Board of Agriculture, 2017). Both districts had cities with at least 10 000 inhabitants, which were classified as rural towns in this study. Excluding rural towns in both districts, the remaining areas within the Västernorrland district were considered countryside, and the remaining areas within the Jämtland district were considered remote.

As such, the definition of countryside in this study is basically identical to the Swedish Board of Agriculture's (2017) definition of rural areas, which are areas with at least five inhabitants per square kilometer and cities with up to 25 000 inhabitants. Furthermore, remote areas were defined as areas with less than five inhabitants per square kilometer (Swedish Board of Agriculture, 2017). The only difference from the definitions of the Swedish Board of Agriculture is that we chose to analyze towns with at least 10 000 inhabitants within rural and remote areas separately. The rationale for this was that such towns have a larger clustering of inhabitants as well as more crime victim support services (e.g., police stations and women's shelters) than less sparsely populated rural and remote areas. Thus, drawing on the differences found when studying IPV in relation to the urban-rural divide (see Edwards, 2015 for a review), this prompted us to conduct a similar analysis where rural towns could be considered as being more urban in nature.

**Analysis**

Statistical analyses for comparing victims living in rural towns, countryside, and remote areas on categorical variables consisted of chi-square tests of independence. To further examine the differences in relation to categorical data between the groups of victims, odds ratios (OR) with 95% confidence intervals (CI) were also used. To this end, the B-SAFER victim vulnerability factors were rated in two ways. First, these were dichotomized, thus measuring the presence (i.e., combining assessments of present and partially present) or absence (i.e., risk factors assessed as absent) of such factors. This dichotomization allowed for examining the presence of vulnerability across levels of rurality and in relation to rates of IPV re-victimization. Second, a composite measure of the five vulnerability factors was created and used as a dependent variable in a two-way analysis of variance, where rurality (i.e., rural towns, countryside, and remote areas) and IPV re-victimization (i.e., yes or no) were entered as categorical predictors. Effect sizes were estimated using Cramer's V and partial eta squared ($\eta^2$). The p-value was set as <.05 and statistical analyses were performed using IBM SPSS version 26.

## Results

Overall, 416 (59.9%) victims lived in rural towns, 192 (27.6%) lived in the countryside, and 87 (12.5%) lived in remote areas. First, the presence of victim vulnerability factors was compared across the three levels of rurality. As can be seen in Table 1, there was a high frequency of victim vulnerability factors present within all three levels, where most factors were present for more than one in three victims, ranging from 18.5% to 72.7%. The most common victim vulnerability factor present was 'unsafe living situation' (58.8% - 72.7%), and the least common was 'inadequate support or resources' (18.5% - 43.5%). More specifically, significant differences were found for two victim vulnerability factors: 'inadequate support or resources' and 'health problems'. Victims living in rural towns and

remote areas were more than two and three times, respectively, as likely as victims living in the countryside to report inadequate support or resources. Finally, victims living in remote areas were more than twice as likely as victims living in the countryside to report health problems.

*INSERT TABLE 1 HERE*

Secondly, we examined rates of IPV re-victimization in relation to the presence of the victim vulnerability factors for all victims in the sample. Overall, 127 (18.3%) victims were re-victimized of IPV. As displayed in Table 2, the following three victim vulnerability factors could discriminate between those victims who were re-victimized and those who were not: 'inconsistent attitudes or behavior', 'unsafe living situation', and 'health problems'. Victims who were re-victimized by their partner were more than 1.5 times as likely to display any of these three vulnerability factors, compared to victims who did not display these factors.

*INSERT TABLE 2 HERE*

Finally, we examined the interaction and main effects of IPV re-victimization and rurality on the mean score of the composite measure of victim vulnerability factors created. A two-way ANOVA demonstrated an interaction effect between rurality and re-victimization $F(2, 654) = 3.53$, $p = .036$, $\eta^2 = .01$, although with a small effect size. The interaction demonstrated that more victim vulnerability factors in combination with increasing rurality also increased the risk for IPV re-victimization. As such, the mean number of victim vulnerability factors present among repeatedly and non-repeatedly victimized women depend on where they live (i.e., rurality). As can be seen in Figure 1, the mean number of vulnerability factors was

higher among re-victimized women living in either remote areas ($M$ = 4.6, $SD$ = 3.1), or in the countryside ($M$ = 4.1, $SD$ = 2.7), as compared to women who were not re-victimized and living in remote areas ($M$ = 2.6, $SD$ = 2.2) or in the countryside ($M$ = 2.8, $SD$ = 2.4). In rural towns, there was no difference between re-victimized women ($M$ = 3.5, $SD$ = 2.3) and those women not re-victimized ($M$ = 3.2, $SD$ = 2.5), in terms of the mean number of vulnerability factors present.

Although the two-way ANOVA demonstrated a significant interaction effect of rurality and re-victimization, post-hoc analysis with one-way ANOVA split on re-victimization (i.e., analysis of simple effects) showed that, among women who were re-victimized, there was no significant difference between women living in remote areas ($M$ = 4.6, $SD$ = 3.1), in the countryside ($M$ = 4.1, $SD$ = 2.7) or in rural towns ($M$ = 3.5, $SD$ =2.3), $F(2, 118) = 1.41$, $p$ = .239. The same held true among women who were not repeatedly victimized, indicating the same amount of victim vulnerabilities for women living in remote areas ($M$ = 2.6, $SD$ = 2.2), in the countryside ($M$ = 2.8, $SD$ = 2.4) or in rural towns ($M$ = 3.2, $SD$ = 2.5), $F(2, 536) = 2.87$, $p$ = .058. In sum, there is a greater difference in vulnerability factors present among repeatedly and non-repeatedly victimized women living in more sparsely populated areas than in more populated areas, although the effect size was low.

*INSERT FIGURE 1 HERE*

## Discussion

The overall aim of this paper was to examine the association between the B-SAFER victim vulnerability factors and rates of IPV re-victimization among women who reported IPV victimization to the Swedish police in a rural context, as well as how these factors interact with each other. The presence of victim vulnerability factors in the sample was overall high, which was expected since living in rural areas adds factors such as isolation, less support available from the surrounding community (e.g., health care and social services), and

a sparser distribution of police officers, compared to in urban areas (DeKeseredy & Rennison, 2020; Edwards, 2015). In comparison to other studies using similar data, the rate of IPV re-victimization was not overly high (18.3%) in the overall sample. For example, previous Swedish studies of IPV re-victimization in cases subjected to a B-SAFER assessment by the police have reported higher such rates (31-42%: Belfrage & Strand, 2012; Svalin et al., 2018). However, the IPV re-victimization rate found in our study should be seen as a conservative estimate of the true rate of re-victimization. As such, victims rarely report their victimization to the police (e.g., NCCP, 2014). Additionally, drawing on the specific barriers and challenges with living in more sparsely populated areas (e.g., less availability of crime victim support services or beliefs about IPV as being a 'private matter'), the reporting rates of re-victimization may be even lower than in more densely populated areas (e.g., DeKeseredy & Rennison, 2020).

Although there was an overall high prevalence of vulnerability factors in the total sample, some differences within levels of rurality emerged. First, victims living in remote areas were more than three times as likely as victims living in the countryside to report inadequate support or resources. Drawing on previous research, these results were expected since victims in remote areas are more physically and socially isolated, as well as have less access to community services in general and to specialized IPV services in particular (Edwards, 2015; Peek-Asa et al., 2011). Furthermore, victims living in rural towns were also more than twice as likely than victims living in the countryside to report inadequate access to support or resources. This may seem incongruent with the findings that less populated areas present more challenges with availability and access to support than more populated areas (e.g., Peek-Asa et al., 2011) and needs to be further examined.

The presence of health problems among victims also differed across levels of rurality, where victims living in remote areas were more than twice as likely as victims living in the

countryside to report health problems. Health problems in the B-SAFER include several problems, such as substance abuse, mental health problems, or unemployment (Kropp et al., 2010). Unfortunately, we did not have more specific information about what type of health problems the women in our sample displayed. Nevertheless, in line with previously suggested explanations for similar results (Peek-Asa et al., 2011), the higher frequency of health problems among victims living in remote areas could be due to these victims' greater isolation as well as having less availability and accessibility to health care and other community resources.

In terms of the ability of the B-SAFER victim vulnerability factors to discriminate between those victims in the overall sample who were re-victimized and not, the presence of inconsistent behavior or attitudes, an unsafe living situation, and health problems were more prevalent among those victims who were re-victimized by IPV. In line with previous research, inconsistent behavior or attitudes, which includes the victim's justification or minimization of the perpetrator's IPV, have been reported to be more prevalent in rural areas (DeKeseredy & Rennison, 2020; Schwab-Reese and Renner, 2017). As such, both victims and perpetrators in rural areas have displayed a higher tolerance and acceptance of IPV against women. Thus, victims who justify the abuse are less likely to leave a violent relationship and are therefore more likely to be re-victimized (Kropp et al., 2010). Furthermore, victims who were re-victimized also demonstrated more health problems. This may entail several overlapping issues, such as unemployment, substance abuse, or mental health problems (e.g., Garcia-Moreno et al., 2014), which can make them dependent on the perpetrator for various resources (e.g., income, drugs, or care: Kropp et al., 2010; Pereira et al., 2020). Therefore, the dependency on the perpetrator increases the likelihood to stay in the relationship and, thus, also increases the risk of being re-victimized. Additionally, victims with an unsafe living situation were more likely to be re-victimized. According to the B-SAFER, having an unsafe

living situation includes living together with the perpetrator or lacking necessary protection for being re-victimized (Kropp et al., 2010). Thus, this indicates that the perpetrator has greater access to the victim and therefore more opportunities to use violence again.

Finally, our two-way ANOVA demonstrated a significant interaction effect between rurality and re-victimization in relation to the mean number of victim vulnerability factors present. As such, IPV re-victimization was more common among those victims who were living in more sparsely populated areas and who displayed more vulnerability factors. Thus, in addition to the previously demonstrated positive relationship between the number of victim vulnerability factors present and a higher risk for IPV re-victimization (e.g., Belfrage & Strand, 2008; Kropp et al., 2010), our results clearly show the importance of considering rurality as a moderator to this relationship. These results also support the notion that living in remote or isolated areas may exacerbate a victim's vulnerabilities and should therefore be regarded as a vulnerability in itself (e.g., Peek-Asa et al., 2011; *masked for review*).

Furthermore, it is not unreasonable to believe that the three victim vulnerability factors found in this study to increase the risk for IPV re-victimization may interact with each other and present specific challenges for those living in more sparsely populated areas. For instance, the greater prevalence of health problems displayed by victims in remote areas may create a dependency on the abusive partner, rendering the victim to stay with the abusive partner and, thus, have an unsafe living situation. Staying with an abusive partner may be more likely given the limited housing options in remote areas, and where separating from a partner might require the victim to move far away and therefore lose social support (e.g., friends or family). However, the decision to stay with the perpetrator, attributed to the victim's health problems and dependency, may be seen by the police as a display of inconsistent behavior or attitudes. Moreover, the socio-cultural context often characteristic of remote areas, such as a wider acceptance of IPV and patriarchal stereotypes, may reinforce victims with a higher degree of

vulnerability to stay in abusive relationships since disclosure of IPV outside of the family can be seen as both a personal and collective embarrassment, as well as associated with shame and stigmatization (DeKeseredy & Rennison, 2020; Edwards, 2015; Logan et al., 2005).

Therefore, living in more sparsely populated areas can be said to be a vulnerability when living in an abusive relationship. This conclusion is in line with previous studies that have argued that the geographical and social isolation associated with living in more sparsely populated areas exacerbates a victim's vulnerability for IPV re-victimization (e.g., Albright et al., 2020; DeKeseredy & Rennison, 2020; Edwards, 2015; Peek-Asa et al., 2011). Nevertheless, drawing on the novelty of this study in examining differences within rural areas, similar studies on this topic is encouraged to validate the findings presented herein.

**Strengths and Limitations**

The current study responds to several of the methodological recommendations made by Edwards (2015) in a previously conducted systematic review of the literature on IPV and rurality. First, by examining within-rural differences related to victim vulnerabilities and IPV re-victimization, the current study offers valuable knowledge to the scarce literature on such differences in rural towns, countryside, and remote areas (Peek-Asa et al., 2011). To this end, our results demonstrate the importance of moving beyond the urban-rural divide that predominates the literature (Edwards, 2015). Second, the prospective follow-up of IPV re-victimization in our study is an improvement over previous study designs using a cross-sectional approach. Third, the victim vulnerability factors examined included community-level variables, such as inadequate support or resources, which are rarely studied in addition to individual-level or relationship-level variables (Edwards, 2015). Finally, this study also responds to the call for more research on IPV and rurality outside of the US.

However, our study also has several limitations. Perhaps most pertinently, given that our sample consists of male-to-female IPV reported to the Swedish police in an overall rural

and remote context, generalizations beyond this context are not possible. First, most IPV is rarely reported to the police, whereas the IPV that is reported generally is more severe in nature than, for example, self-reported victimization (NCCP, 2014; Sartin et al., 2006). Such low reporting rates are also more likely to be geographically skewed, with IPV victims living in remote areas being less likely to report their re-victimization (e.g., DeKeseredy & Rennison, 2020; Felson et al., 2005). Thus, the IPV re-victimization rate demonstrated in this study (18.3%) should be considered a conservative estimate of the actual re-victimization rate. Second, we cannot generalize our findings to female-to-male, or same-sex, perpetrated IPV. Although both men and women can be perpetrators of IPV, an overwhelming majority of perpetrators reported to the Swedish police are men (e.g., NCCP, 2014).

Another limitation of this study pertains to the definition of rurality. To date, there is no definition generally agreed upon, with researchers using various definitions (e.g., DeKeseredy & Rennison, 2020; Edwards, 2015). Moreover, since no previous studies on this topic have been carried out in Sweden, comparisons are made primarily with US-based research. To this end, our categorization of rural towns, countryside, and remote areas could be seen as roughly corresponding to the large rural towns, small rural areas, and isolated areas described by Peek-Asa et al. (2011), but there could be discrepancies. Although this could be seen as problematic, Sweden and the US should arguably not be seen as two vastly different cultures or locations, and there are similarities between rural places in the US and in Sweden (see Sandberg, 2013 for a discussion). Finally, the B-SAFER vulnerability factors examined in this study were broadly defined, thus, making it impossible to know the specific vulnerabilities displayed by the victims. For example, health problems in the B-SAFER can vary from mental health problems to unemployment, which entails a broad range of problems that affect victims in very different ways. Since the police officers conducting the B-SAFER assessments

did not specify what type of health problems they identified, more detailed information about the vulnerability factors would have been desired.

**Practical Implications**

The findings of this study have several practical implications for those professionals assigned to assess and manage risk for IPV re-victimization (e.g., police and social workers), especially in a rural context. First, the frequency of victim vulnerability factors among victims in our overall sample was high, which may be explained with that IPV reported to the police is often more severe in nature (e.g., NCCP, 2014; Sartin et al., 2006; *masked for review*). Nonetheless, this demonstrates the importance of a) identifying victim vulnerabilities when assessing risk for IPV re-victimization, and b) providing support aiming to reduce these vulnerabilities. Considering that vulnerability factors are rarely included in existing IPV risk assessment tools, professionals tasked with assessing and managing the risk for IPV re-victimization would receive a more appropriate and holistic perception about this risk if they also examined such factors (e.g., Belfrage & Strand, 2008), for example, by asking questions related to vulnerabilities when talking to IPV victims. Furthermore, the extent of psychosocial and behavioral vulnerabilities displayed by the sample further supports the recommendations to offer support and services to victims of IPV that target their psychological health (Kuijpers et al., 2011). In terms of victim safety planning, it has been proposed that a victim vulnerability analysis could be an essential starting point for police and social services (Bjornholt, 2019). As part of the risk management strategies recommended in IPV cases, such an analysis could be vital in order to increase the victims' cooperation in both the police investigation and the protective actions suggested (Bjornholt, 2019; Logan & Walker, 2018; *masked for review*).

Second, it is important to acknowledge the additional barriers that victims of IPV living in rural and remote areas face, compared to victims living in more populated areas. These

include longer geographical distances to travel for safety or support, longer response times for police to respond to emergency calls, as well as less availability of victim support services (e.g., shelters: Moffitt et al., 2020). Coupled with the fact that law enforcement and social services often are understaffed in these more sparsely populated areas, this contributes to a more vulnerable situation for IPV victims (e.g., Edwards, 2015). For example, in a study examining perceptions of working with IPV in rural areas, social workers experienced that victims of IPV in these areas required more services (Eastman & Bunch, 2007). Meanwhile, the social workers in these rural areas had limited resources, often requiring them to have multiple roles in their work with their clients. These complexities highlight the need for increased collaboration between, for example, the police and social services, in working to prevent IPV re-victimization. Although such collaboration does exist, there is usually no framework to promote routines for collaboration on risk management in place. Problematically, this collaboration often relies on the individual police officers or social workers and their personal network they have within their own district, which, arguably, is more characteristic of multi-agency collaboration in rural areas compared to in urban areas.

**Conclusion**

Overall, the police identified high frequencies of victim vulnerability factors among victims of IPV and several of those factors discriminated between re-victimization across levels of rurality. However, the main result of this study was the identified interaction effect between rurality (i.e., rural towns, countryside, and remote areas) and IPV re-victimization in relation to the degree of vulnerability, where such re-victimization was more common for victims with a higher degree of vulnerability factors and who were also living in more sparsely populated areas. Finally, although research has previously suggested that IPV in rural areas is more severe and frequent compared to urban areas, this study adds to this body of knowledge by demonstrating important differences within a rural context.

## References

Albright, D. L., McDaniel, J., Godfrey, K., Carlson, C., Fletcher, K. L., & Thomas, K. H. (2020). Intimate Partner Violence Among Service Members and Veterans: Differences by Sex and Rurality. *Traumatology.* Advance online publication. http://dx.doi.org/10.1037/trm0000236

Au, A., Cheung, G., Kropp, P. R., Yuk-Chung, C., Lam, G. L. T., & Sung, P. (2008). A preliminary validation of the brief spousal assault form for the evaluation of risk (B-SAFER) in Hong Kong. *Journal of Family Violence, 23*, 727-735. doi: 10.1007/s10896-008-9198-z

Belfrage, H. & Strand, S. (2008). Structured spousal violence risk assessment: Combining risk factors and victim vulnerability factors. *International Journal of Forensic Mental Health Services, 7 (1),* 39-46. DOI: 10.1080/14999013.2008.9914402

Belfrage, H., & Strand, S. (2012). Measuring the outcome of structured spousal violence risk assessments using the B-SAFER: Risk in relation to recidivism and intervention. *Behavioral Sciences and the Law, 30*, 420-430. doi: 10.1002/bsl.2019

Bell, M.E., Bennett Cattaneo, L., Goodman, L. A., & Dutton, M. A. (2008). Assessing the Risk of Future Psychological Abuse: Predicting the Accuracy of Battered Women's Predictions. *Journal of Family Violence 23*:69–80. DOI 10.1007/s10896-007-9128-5

Breiding, M. J., Ziembroski J. S., & Black, M. C. (2009). Prevalence of rural intimate partner violence in 16 US states, 2005. *Journal of Rural Health, 25,* 240-246. doi: 10.1111/j.1748-0361.2009.00225.x

Bjørnholt, M. (2019). The social dynamics of revictimization and intimate partner violence: an embodied, gendered, institutional and life course perspective. *Nordic Journal of Criminology 20*(1), 90–110. https://doi.org/10.1080/14043858.2019.1568103

Campbell, M. A., Gill, G., & Ballucci, D. (2018). Informing police response to intimate partner violence: Predictors of perceived usefulness of risk assessment screening. *Journal of Police and Criminal Psychology, 33*(2), 175-187. doi: 10.1007/s11896-017-9244-y

Capaldi, D. M., Knoble, N. B., Shortt, J. W., & Kim, H. K. (2012). A systematic review of risk factors for intimate partner violence. *Partner Abuse, 3*(2), 231-280. http://dx.doi.org/10.1891/1946-6560.3.2.231

DeKeseredy, W. S., & Rennison, C. M. (2020). Thinking theoretically about male violence against women in rural places: A review of the extant sociological literature and suggestions for future theorizing. *International Journal of Rural Criminology, 5*(2), 163-180.

Devries, K. M., Mak, J. Y. T., Garcia-Moreno, C., Petzold, M., Child, J. C., Falder, G., Lim, S., Bacchus, L. J., Engell, R. E., Rosenfeld, L., Pallitto, C., Vos, T., Abrahams, N. & Watts, C. H. (2013). The global prevalence of intimate partner violence against women. *Science, 340,* 1527–1528. doi: 10.1126/science.1240937

Eastman, B. J., & Bunch, S. G. (2007). Providing services to survivors of domestic violence: A comparison of rural and urban service provider perceptions. *Journal of Interpersonal Violence, 22,* 465–473.

Edwards, K. M. (2015). Intimate Partner Violence and the Rural– Urban–Suburban Divide: Myth or Reality? A Critical Review of the Literature. *Trauma, Violence, & Abuse. 16(3),* 359-373. doi: 10.1177/1524838014557289

European Institute for Gender Equality, EIGE (2021). https://eige.europa.eu/

Estrellado, A. & Loh, J. (2014). Factors Associated With Battered Filipino Women's Decision to Stay in or Leave an Abusive Relationship. *Journal of Interpersonal Violence*, *29*(4), 575-592. doi: 10.1177/0886260513505709

Felson, R.B., Ackerman, J.M., & Gallagher, C. A. (2005). Police intervention and the repeat of domestic assault. *Criminology, 43*(3), 563-588. https://doi.org/10.1111/j.0011-1348.2005.00017.x

García-Moreno, C., Hegarty, K., d'Oliveira, A. F. L., Koziol-McLain, J., Colombini, M., & Feder, G. (2015). The health-systems response to violence against women. *The Lancet, 385*, 1567-1579. doi: http://dx.doi.org/10.1016/ S0140-6736(14)61837-7.

Henderson, A.J.Z., Bartholomew, K., & Dutton, D. G. (1997). He loves me; He loves me not: Attachment and separation resolution of abused women. *Journal of Family Violence, 12*(2), 169-191.

Kropp, P. R., Hart, S. D., & Belfrage, H. (2010). *Brief spousal assault form for the evaluation of risk (BSAFER) Version 2: User manual.* Proactive Resolutions.

Kuijpers, K. F., van der Knaap, L. M., & Lodewijks, I. A. J. (2011). Victims' influence on intimate partner violence revictimization: A systematic review of prospective evidence. *Trauma, Violence, & Abuse, 12*(4), 198-219.

Logan, T. K., Shannon, L., & Walker, R. (2005). Protective Orders in Rural and Urban Areas: A Multiple Perspective Study. *Violence Against Women, 11*(7), 876-911. Doi: 10.1177/1077801205276985

Logan, T., & Walker, R. (2018). Advocate Safety Planning Training, Feedback, and Personal Challenges. *Journal of Family Violence, 33*, 213-225. doi: https://doi.org/10.1007/s10896-017-9949-9

Meyer, S. (2016). Still blaming the victim of intimate partner violence? Women's narratives of victim desistance and redemption when seeking support. *Theoretical Criminology, 20*(1), 75-90. doi: 10.1177/1362480615585399

Moffitt, P., Aujla, W., Giesbrecht, C. J., Grant, I., Straatman, A-L. (2020). Intimate Partner Violence and COVID-19 in Rural, Remote, and Northern Canada: Relationship,

Vulnerability and Risk. *Journal of family violence, 2020*. 1573-2851. DOI: 10.1007/s10896-020-00212-x

National Council for Crime Prevention (NCCP). (2014). *Brott i nära relationer: En nationell kartläggning* (Brå-rapport 2014:8) [Offences in close relationships: A national survey]. National Council for Crime Prevention.

National Council for Crime Prevention (NCCP). (2019). *Kriminalstatistik 2018: Anmälda brott. [Crime statistics 2018: Reported crimes]*. National Council for Crime Prevention.

Peek-Asa, C., Wallis, A., Harland, K., Beyer, K., Dickey, P. & Saftlas, A. (2011). Rural Disparity in Domestic Violence Prevalence and Access to Resources. *Journal of Women's Health, 20*, 1743-1749. doi: 10.1089/jwh.2011.2891

Pereira, M. E., Azeredo, A., Moreira, D., Brandão, I., & Almeida, F. (2020). Personality characteristics of victims of intimate partner violence: A systematic review. *Aggression and Violent Behavior*, 52, 1-11. doi: https://doi.org/10.1016/j.avb.2020.101423

Sandberg, L. (2013). Backward, dumb, and violent hillbillies? Rural geographies and intersectional studies on intimate partner violence. *Affilia: Journal of Women and Social Work, 28*(4), 350-365. doi: 10.1177/0886109913504153

Sartin, R. M., Hansen, D. J., & Huss, M. T. (2006). Domestic violence treatment response and recidivism: A review and implications for the study of family violence. *Aggression and Violent Behavior, 11*(5), 425-440. doi: 10.1016/j.avb.2005.12.002

Schwab-Reese, L.M., & Renner,L.M. (2017). Attitudinal Acceptance of and Experiences with Intimate Partner Violence among Rural Adults. *Journal of Family Violence, 32*,115–123 DOI 10.1007/s10896-016-9895-y

Serie, C. M. B., van Tilburg, C. A., van Dam, A., & de Ruiter, C. (2017). Spousal assaulters in outpatient mental health care: The relevance of structured risk assessment. J*ournal of Interpersonal Violence, 32*(11), 1658-1677. doi: 10.1177/0886260515589932

Storey, J. E., Kropp, R. P., Hart, S. D., Belfrage, H., & Strand, S. (2014). Assessment and management of risk for intimate partner violence by police officers using the Brief Spousal Assault Form for the Evaluation of Risk. *Criminal Justice and Behavior, 41*(2), 256-271. doi: 10.1177/0093854813503960

Svalin, K., Mellgren, C., Torstensson Levander, M., & Levander, S. (2018). Police employees' violence risk assessments: The predictive validity of the B-SAFER and the significance of protective actions. *International Journal of Law and Psychiatry*, 56, 71-79. doi: 10.1016/j.ijlp.2017.09.001

Swedish Board of Agriculture (SBA). (2017). Statistics from the project "All about the country". In Swedish Jordbruksverket, "Allt om landet". 2017-08-24 http://www.jordbruksverket.se/swedishboardofagriculture.4.6621c2fb1231eb917e680002462.html

Trujillo, M. P., & Ross, S. (2008). Police response to domestic violence: Making decisions about risk and risk management. *Journal of Interpersonal Violence, 23*(4), 454-473. doi: 10.1177/0886260507312943

MASKED papers are not included in the reference list for the blinded manuscript

Table 1. Presence of victim vulnerability factors among female IPV victims (n = 695) across levels of rurality.

| | | Present (%) | | | | | Post hoc comparisons†: OR (95% CI) | | |
|---|---|---|---|---|---|---|---|---|---|
| B-SAFER victim vulnerability factors | Missing (%) | Rural town (*n* = 416) | Countryside (*n* = 192) | Remote (*n* = 87) | $\chi^2$ | Cramer's V | Rural town-countryside | Rural town-remote | Countryside-remote |
| Inconsistent attitudes or behavior | 16.1 | 57.2 | 47.0 | 57.7 | 5.08 | 0.09 | | | |
| Extreme fear of perpetrator | 15.5 | 40.2 | 38.7 | 35.2 | 0.65 | 0.03 | | | |
| Inadequate support or resources | 14.4 | 32.7[a] | 18.5[b] | 43.5[a] | 17.89*** | 0.17 | 2.2 [1.4, 3.6] | | 3.4 [1.8, 6.2] |
| Unsafe living situation | 14.4 | 63.5 | 58.8 | 72.7 | 3.99 | 0.08 | | | |
| Health problems | 24.9 | 49.5[a,b] | 44.7[a] | 65.5[b] | 6.96* | 0.12 | | | 2.3 [1.2, 4.4] |

*Notes*. IPV = Intimate partner violence; B-SAFER = Brief Spousal Assault Form for the Evaluation of Risk. OR = odds ratios. CI = confidence intervals. Groups with different superscripts differ significantly from each other.

*p < .05. **p < .01. ***p < .001

†Comparisons Bonferroni-adjusted at $p < .017$

Table 2. Rates of intimate partner violence re-victimization in relation to presence of victim vulnerability factors.

| B-SAFER vulnerability factor | Rates of re-victimization (%) | | $\chi^2$ | Cramer's V | OR (95% CI) |
|---|---|---|---|---|---|
| | Present | Absent | | | |
| Inconsistent attitudes or behavior | 25.0 | 17.2 | 5.08* | 0.09 | 1.6 [1.1, 2.4] |
| Extreme fear of perpetrator | 23.9 | 18.8 | 2.16 | 0.06 | |
| Inadequate support or resources | 23.3 | 20.0 | 0.80 | 0.04 | |
| Unsafe living situation | 23.2 | 15.1 | 5.50* | 0.10 | 1.7 [1.1, 2.6] |
| Health problems | 25.0 | 17.8 | 3.99* | 0.09 | 1.5 [1.0, 2.4] |

*Notes*. IPV = Intimate partner violence; B-SAFER = Brief Spousal Assault Form for the Evaluation of Risk. OR = odds ratios. CI = confidence intervals.

*p < .05 **p < .01 ***p < .001

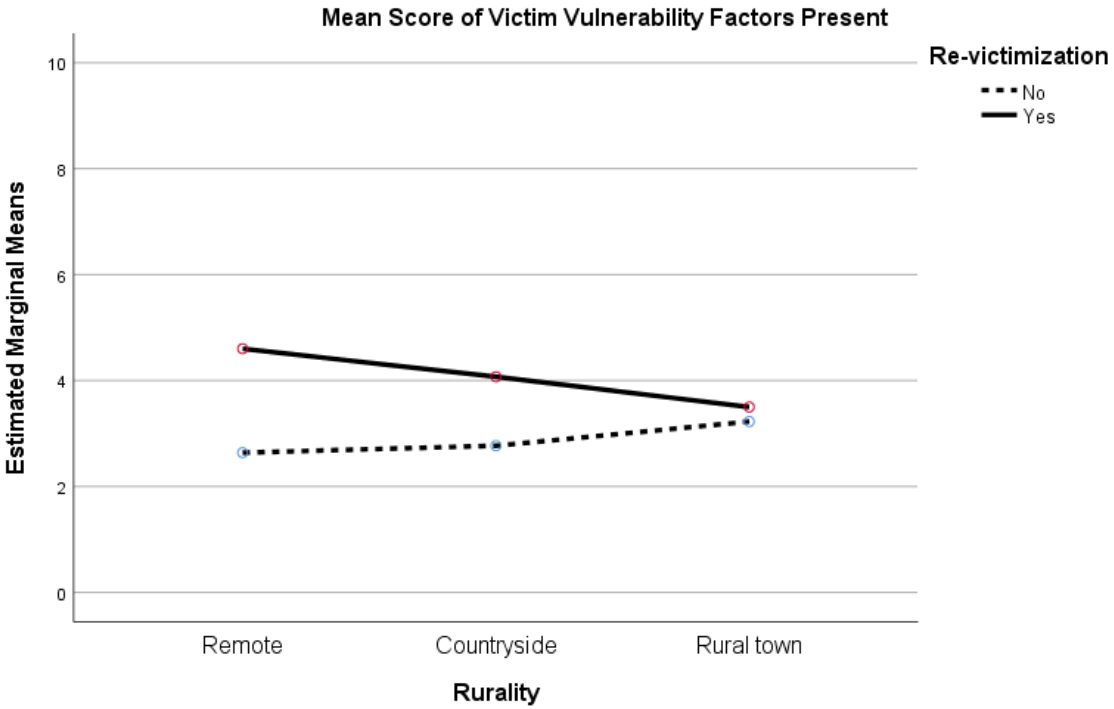


Figure 1. Main and interaction effects of intimate partner violence re-victimization and rurality on the mean score of victim vulnerability factors.