



This is a repository copy of *The none in three victim responsiveness assessment (Ni3: VRA) : a new outcome measure for intimate partner violence (IPV) prevention programs.*

White Rose Research Online URL for this paper:
<http://eprints.whiterose.ac.uk/145411/>

Version: Accepted Version

Article:

Debowska, A. orcid.org/0000-0002-3035-3945, Boduszek, D., Willmott, D. et al. (1 more author) (2019) The none in three victim responsiveness assessment (Ni3: VRA) : a new outcome measure for intimate partner violence (IPV) prevention programs. *Journal of Children's Services*, 14 (2). pp. 97-106. ISSN 1746-6660

<https://doi.org/10.1108/JCS-12-2018-0029>

© 2019 Emerald. This is an author-produced version of a paper subsequently published in *Journal of Children's Services*. Uploaded in accordance with the publisher's self-archiving policy.

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

The None in Three Victim Responsiveness Assessment (Ni3: VRA): A new outcome measure for intimate partner violence (IPV) prevention programs

Agata Debowska¹, Daniel Boduszek², Dominic Willmott², & Adele D. Jones²

¹ The University of Sheffield, Sheffield, UK

² University of Huddersfield, Huddersfield, UK

Article accepted for publication in *Journal of Children's Services*

Conflict of Interest: Authors declare that they have no conflict of interest.

This research has been supported financially by the European Union (EuropeAid/136243/DD/ACT/Multi – Towards a Future Free from Domestic Violence). The funding source was not involved in the preparation of this manuscript.

Correspondence concerning this article should be addressed to Daniel Boduszek, University of Huddersfield, Department of Psychology, Edith Key Building, Huddersfield HD1 3DH, United Kingdom, contact email: d.boduszek@hud.ac.uk

Abstract

Purpose: The study aim was to develop and validate the None in Three Victim Responsiveness Assessment (Ni3: VRA) examining affective and cognitive responsiveness toward victims of intimate partner violence.

Design/methodology/approach: Data were collected at two time points in a sample of 359 young people from Barbados and Grenada (56.27% female; *M* age = 12.73 years).

Findings: Confirmatory factor analysis (CFA) results indicated that the Ni3: VRA scores are best captured by a two-factor solution, including affective and cognitive dimensions. A test-retest correlation confirmed the reliability of the Ni3: VRA over time. Affective responsiveness formed a significant positive association with caring/cooperative behaviour.

Originality/value: The Ni3: VRA can be used for the evaluation of preventive strategies aimed at reducing the rates of IPV.

Keywords: The None in Three Victim Responsiveness Assessment (Ni3: VRA); Victim empathy; Intimate partner violence (IPV); Prevention; Children and young people; Confirmatory factor analysis

Introduction

Violence against women

Violence against women is a major health-care, human rights, and social policy concern. Worldwide statistical data suggest one in three women will be victimized in their lifetime. The majority of physical, emotional, and sexual violence is committed by an intimate partner or an ex-partner (World Health Organization [WHO], 2013). Intimate partner violence (IPV) entails serious negative consequences for women's psychological and physical wellbeing. In a review of research inquiring into health consequences of IPV, Campbell (2002) reported increased incidence of chronic pain, injury, gastrointestinal problems, sexually-transmitted diseases, depression, and post-traumatic stress disorder (PTSD) among women who were abused. These impacts result in substantial economic costs, including expenditures on health-care services, loss of productivity, and premature death. In one study, the total annual cost of IPV in the United States was estimated at \$5.8 billion dollars in 1995. Updated to 2003 dollars, these costs would amount to \$8.3 billion (Max, Rice, Finkelstein, Bardwell, & Leadbetter, 2004).

WHO (2013) regional estimates indicate the second highest prevalence of violence among women from the Americas. Several sources have also noted one of the highest risks of victimization for women and girls from the Caribbean (Jeremiah, Gamache, & Hegamin-Younger, 2013; Jeremiah, Quinn, & Alexis, 2017; Reid, Reddock, & Nickenig, 2014). In spite of this high incidence of violence against women, large-scale quantitative studies on the issue are scarce in the region. In one notable exception, Le Franc, Samms-Vaughan, Hambleton, Fox, and Brown (2008) demonstrated that 73.4% of participating women from Barbados, Jamaica, and Tobago had experienced violence victimization, most frequently perpetrated in a relationship (66.7%). More recently, Bott, Guedes, Goodwin, and Mendoza

(2012) reported that between 17% and 53.3% of women in Latin America and the Caribbean suffered IPV. In a social survey of 600 Barbadians conducted between May and June 2014 by the Caribbean Development Research Services (CADRES, 2014), 76% of respondents held the view that domestic violence was a major issue and 36% had someone close to them who had experienced IPV. To our knowledge, survey data on the prevalence of domestic violence in another Eastern Caribbean nation, Grenada, do not exist. Official statistical records indicate that 2558 alleged offenders, including 2161 males, were arrested and charged by the Royal Grenada Police Force for offenses in relation to domestic violence between 2012 and 2016 (Alexander, 2017). The above findings combined indicate that IPV is a serious yet under-researched problem in the Caribbean.

Habituation to violence

Violence against women can be explained by a mechanism referred to as the intergenerational transmission, whereby the normalization and use of violence in intimate relationships is acquired in childhood, through observing one's parents' violent behavior (Stith et al., 2000). This is in line with Bandura's (1977) social learning theory, explicating that learning occurs through direct behavioral conditioning and imitation of behaviors exhibited and/or reinforced by others. Witnessing family violence and being subject to victimization have been recognised as significant factors in building tolerance for interpersonal violence (Debowska, Boduszek, Dhingra, Kola, & Meller-Prunska, 2015; WHO, 2009), violent offending (Fox, Perez, Cass, Baglivio, & Epps, 2015), and IPV perpetration (Ireland & Smith, 2009).

It appears that, on a deeper psychological level, the process of violence normalization may involve affective and cognitive desensitization to victims of violence. This in turn results in reduced victim empathy, i.e., a cognitive and emotional understanding of the experience of

victims (Mann & Barnett, 2013). Global empathy, i.e., general reactions to the experience of others, was previously demonstrated to play an important role in maintaining healthy social relationships (Fisher & Howells, 1993) and in the development of morality (Eisenberg, 2000). Individuals with lowered empathy levels may behave aggressively because they do not appreciate the effects their behaviour may have on others (Feshbach, 1975). Interestingly, one study among incarcerated sexual and non-sexual offenders found that rapists suppress empathy towards their victims but this was not associated with global empathy deficits (Fernandez & Marshall, 2003), highlighting the importance of contextual empathy assessment. In a similar vein, Fernandez, Marshall, Lightbody, and O'Sullivan's (1999) research indicated that child molesters, compared with non-offenders, had lowered empathy levels toward sexually victimized children. The two groups, however, did not differ significantly on empathy toward children in general. Considered in light of IPV, these prior results provide a plausible explanation as to why violence against women is so pervasive and why not all men who abuse their partners engage in different forms of violence (Holtzworth-Munroe & Meehan, 2004).

Victim-specific empathy scores, but not global empathy scores, were also positively associated with improved treatment outcomes for sexual offenders (Brown, Harkins, & Beech, 2012) and non-offending fraternity men who participated in a rape prevention program (Foubert & Newberry, 2006). Therefore, it appears that fostering and enhancing victim empathy should constitute a vital component of interpersonal violence prevention programs, including those targeted at young non-offending people. Nevertheless, to date, victim empathy has been studied predominantly among populations who sexually offend and a validated assessment tool which would reliably capture affective and cognitive responsiveness to victims of IPV among non-offending young people does not currently exist.

The development of a measure of affective and cognitive responsiveness to victims of IPV

Most existing victim empathy measures are concerned with sexual offenses and none had been designed with non-offending, young populations in mind. For example, the Victim Empathy Scale (VES; Beckett & Fisher, 1994) is used with sex offenders to measure their views on the impact of their behavior on the victims. The VES assesses the extent to which offenders believe victims enjoy and are able to stop sexual contact, as well as offenders' experiences of fear and guilt. Another scale, the Child Molester Empathy Measure (CMEM; Fernandez et al., 1999), is composed of perspective taking (i.e., cognitive empathy) and emotional response (i.e., affective empathy) components. The first 30 items of the scale examine offenders' recognition of the child's feelings, whereas the subsequent 20 items measure respondents' feelings toward the molested child. By rewording CMEM items, Fernandez and Marshall (2003) created the Rapist Empathy Measure (REM). Next, the Rape Empathy Scale (RES; Deitz, Blackwell, Daley, & Bentley, 1982) consists of 19 items examining respondents' beliefs about rape (e.g., "In general, I feel that rape is an act that is provoked by the rape victim"). It can be used with non-offending samples (see Foubert & Newberry, 2006 for application), but the scale was criticized for measuring rape myths rather than affective and cognitive empathy (Olsen-Fulero & Fulero, 1997; Smith & Frieze, 2003). To address this limitation, Smith and Frieze (2003) developed the Rape-Victim Empathy Scale (REMV) and the Rape-Perpetrator Empathy Scale (REMP), both of which reflect cognitive and emotional aspects of empathy.

In considering the high prevalence of IPV suffered by women across the globe (WHO, 2013) and prior research suggesting that deficits in victim-specific but not global empathy may account for particular forms of violent behaviour (e.g., Fernandez et al., 1999; Fernandez & Marshall, 2003), we created the None in Three Victim Responsiveness

Assessment (Ni3: VRA). The Ni3: VRA is a self-report instrument consisting of 16 items indexed on a five-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). Item generation relied on theory, earlier victim and general empathy measures, and discussions with a panel of experts associated with the None in Three Research Centre¹. Because research suggests that global empathy and victim empathy are multidimensional constructs (e.g., Boduszek, Debowska, Dhingra, & DeLisi, 2016; Davis, 1983; Fernandez et al., 1999; Fernandez & Marshall, 2003; Reniers, Corcoran, Drake, Shryane, & Völlm, 2011), the Ni3: VRA consists of two subscales: affective responsiveness (eight items) and cognitive responsiveness (eight items). *Affective responsiveness* (AR) relates to the ability to respond to a victim with appropriate feelings, whereas *cognitive responsiveness* (CR) assesses the ability to understand victims' emotional states, mentally represent victims' emotional processes, and engage with victims at a cognitive level. The Ni3: VRA items inquire into young people's responsiveness to women's experiences of physical violence (e.g., AR: "I get upset when I see a woman being physically hurt by her partner"; CR: "I can imagine what a woman physically hurt by her partner is thinking or feeling") and emotional violence (e.g., AR: "I get upset when I see a woman being called names or threatened by her partner"; CR: "I would find it easy to imagine how a woman might feel while she is shouted at or called names by her partner"). Since children are less likely to directly witness sexual IPV, the Ni3: VRA does not refer to sexual abuse explicitly. The measure however includes some items which do not discern between the different types of IPV and, instead, focus on victims being hurt in general (e.g., AR: "Sometimes I cry when I see a woman being hurt by her partner"; CR: "I find it easy to recognize emotions that a woman hurt by her partner might feel").

¹ The None in Three Research Centre raises awareness about gender-based violence and its prevention. Research conducted by the centre has been funded by the European Union and Research Councils UK.

Study aims

Witnessing violence is a significant factor in building tolerance for violent behavior (Stith et al., 2000; Whitfield, Anda, Dube, & Felitti, 2003). As such, a preventive approach to breaking the cycle of IPV involving children and young people is warranted. This effort, however, is undermined by a lack of suitable outcome measures within this context. Therefore, the first aim of the current study was to develop a valid measure of affective and cognitive responsiveness to victims of IPV, Ni3: VRA, which could be reliably used with young people. Second, we tested the factor structure of the Ni3: VRA using confirmatory factor analysis (CFA) at two time points. We also examined the internal consistency of the scale using composite reliability (see Boduszek & Debowska, 2016; Debowska, Boduszek, Kola, & Hyland, 2014; Sherretts & Willmott, 2016), test-retest reliability, and tested predictive validity of the Ni3:VRA factors in relation to caring/cooperative behavior.

Methods

Sample and procedures

We approached 400 children and young people from four primary and four secondary schools in Barbados and Grenada to participate in the None in Three (Ni3) project – a two-year (2016 – 2018) action-oriented project funded by the European Union and implemented in partnership with the Sweet Water Foundation.

Initial approval for the study and access to the schools was granted by the Ministry of Education in both countries and ethical approval was granted by the home UK University review Panel. The participating schools were randomly selected and children within the schools were approached opportunistically after consultation with the principal teachers. Three hundred and fifty nine children ($N = 359$) responded to our invitation with parental

consent (response rate = 89.75%). The sample included 202 girls and 157 boys (age range from 9 to 17 years, $M = 12.73$, $SD = 2.23$, $Mdn = 13$, and $Mode = 10$). Most of the participants were from rural parts of the countries ($N = 270$). The data for this part of the project were collected in 2017 at two time points, referred to throughout the article as T1 (i.e., time 1) and T2 (i.e., time 2). T2 data collection took place after one week and included responses from 221 participants (61.6% retention rate). Data collection was coordinated by teachers. These teachers received appropriate training from project country directors, prior to the commencement of data collection. Given the children's standing as a vulnerable population and the potential that they may feel compelled to participate, it was made clear both in the consent form and verbally (by a teacher) that participation was voluntary. Children consenting to participate were told that all information they provided in this study was anonymous. Completed surveys were collected from all participating schools and posted to the home university in the United Kingdom for data analysis.

Measures

None in Three Victim Responsiveness Assessment (Ni3: VRA) was designed for the purpose of the current study to measure affective and cognitive responsiveness to victims of IPV. The scale is composed of 16 items indexed on a five-point Likert scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, 5 = *strongly agree*). The Ni3: VRA consists of two subscales: affective responsiveness (eight items) and cognitive responsiveness (eight items). Scores on the total scale range from 16 to 80, whereas subscale scores range from 8 to 40. Higher scores indicate greater affective and cognitive responsiveness to victims of IPV.

Modified Aggression Scale – Caring/Cooperative subscale (Bosworth & Espelage, 1995) was used to examine respondents' caring/cooperative behaviour. The subscale was

designed to be used with school children and consists of eight items measured on a four-point Likert scale (1 = *never*, 2 = *1-2 times*, 3 = *3-4 times*, 4 = *5 or more times*) reflecting positive behaviors among children. Respondents were instructed to indicate how many times they did each activity in the last week. An example item: “I protected someone from a bully”. Scores range from 8 to 32, with higher scores indicating more caring/cooperative behavior.

Composite reliability for the subscale was 0.89.

Analytical procedure

The dimensionality and construct validity of the Ni3: VRA was investigated through the application of confirmatory factor analysis (CFA) using data collected at two time points (T1 and T2). Two alternative models of the Ni3: VRA structure were specified and tested using *Mplus* version 7.4 (Muthén & Muthén, 1998-2015) with WLSMV estimation. Model 1 is a one-factor solution where all Ni3: VRA items load on a single latent factor. Model 2 is a correlated two-factor solution where items 1-8 load on affective responsiveness factor and items 9-16 load on cognitive responsiveness factor.

The overall fit of each model and the relative fit between models were assessed using a range of goodness-of-fit statistics: the χ^2 statistic, the CFI and TLI. For CFI and TLI, values above 0.90 indicate acceptable model fit (Zimmermann et al., 2014), whereas values above 0.95 indicate good model fit (Bentler, 1990; Hu & Bentler, 1999). In addition, the RMSEA with 90% confidence interval is presented. Ideally, this index should be less than 0.05 to suggest good fit; however, values equal or less than 0.08 suggest acceptable model fit (Bentler, 1990; Hu & Bentler, 1999).

Differential predictive validity was assessed through the use of structural equation modelling with Maximum Likelihood Robust (MLR) estimator. In contrast to previous research typically assessing internal consistency of items (Cronbach’s α), the present study

evaluated the internal reliability of the Ni3: VRA using composite reliability (for procedure see Raykov, 1997). Values greater than 0.60 are generally considered acceptable (Diamantopoulos & Siguaaw, 2000). Test-retest reliability was assessed using Pearson product-moment correlation coefficient. If the correlation coefficient between tests administered at two time points on the same group of participants is 0.70 or higher, then it has an acceptable test-retest reliability (George & Mallery, 2003).

Results

Descriptive statistics for two Ni3: VRA factors measured at two time points (T1 and T2) and caring/cooperative behavior measured at T2 only are presented in Table 1.

Table 1.

Descriptive Statistics for the Affective and Cognitive Responsiveness Factors and Caring/Cooperative Behavior

Time	Variables	<i>M</i>	<i>SD</i>	<i>Mdn</i>	Min.	Max.
1	Affective	32.01	5.80	33	11	40
	Cognitive	28.80	6.23	29	9	40
2	Affective	31.41	6.72	32	8	40
	Cognitive	29.20	7.28	30	8	40
	Caring/Cooperative Behavior	21.09	5.99	23	8	32

Table 2 presents the fit indices of the two alternative models of the Ni3: VRA. Unidimensional solution (Model 1) estimated at both time points was rejected based on the CFI and TLI (values below 0.90) and RMSEA (values above 0.08) statistics. Model 2 representing a two factorial solution offered satisfactory representations of the data based on all fit statistics. These results were consistent for data collected at two time points (T1: CFI = 0.93, TLI = 0.92, RMSEA [95% CI] = 0.08 [0.07/0.09]; T2: CFI = 0.96, TLI = 0.95, RMSEA [95% CI] = 0.07 [0.06/0.09]).

The adequacy of the two factorial solution of the Ni3: VRA was also determined based on statistically significant standardized factor loadings reported at two time points (see Table 3). All items load strongly on respective latent factors of the Ni3: VRA. These results suggest that the Ni3: VRA consists of two correlated subscales (affective responsiveness and cognitive responsiveness).

Table 2.

Fit Indices for Two Alternative Models of the None in Three Victim Responsiveness Assessment (Ni3: VRA)

Time	Model	χ^2	<i>df</i>	CFI	TLI	RMSEA (90% CI)
1 (N = 359)	One factor	900.71*	104	0.77	0.74	0.15 (0.14/0.16)
	Two factors	338.81*	103	0.93	0.92	0.08 (0.07/0.09)
2 (N = 221)	One factor	708.08*	104	0.87	0.85	0.16 (0.15/0.17)
	Two factors	297.65*	103	0.96	0.95	0.07 (0.06/0.09)

Note. χ^2 = chi square goodness of fit statistic; *df* = degrees of freedom; CFI = Comparative Fit Index; TLI = Tucker Lewis Index; RMSEA = Root-Mean-Square Error of Approximation; CI = Confidence Interval.

* Indicates χ^2 is statistically significant ($p < 0.001$).

Table 3.

Standardized Factor Loadings for Affective and Cognitive Factors of the Ni3: VRA for Time 1 and Time 2.

Original item numbers	Affective	Cognitive
1. It makes me feel sad to see a woman who is physically hurt (e.g., hit/beaten/pushed/punched) by her partner.	0.77, 0.83	
2. I get upset when I see a woman being physically hurt by her partner.	0.78, 0.87	
3. Seeing a woman who was hurt by her partner crying, makes me feel like crying too.	0.67, 0.79	
4. When I see a woman suffering after she was hit by her partner, I feel bad.	0.76, 0.79	
5. I feel sorry for women who are physically hurt by their partners.	0.72, 0.84	
6. When I see a woman being shouted at, threatened or called names by her partner, I feel sorry for her.	0.72, 0.82	
7. I get upset when I see a woman being called names or threatened by her partner.	0.74, 0.81	
8. Sometimes I cry when I see a woman being hurt by her partner.	0.55, 0.71	
9. I can understand how a woman who was physically hurt by her partner is feeling.		0.66, 0.79
10. I can imagine what a woman physically hurt by her partner is thinking.		0.64, 0.78
11. I can tell what a woman beaten by her partner feels by the look on her face.		0.58, 0.72
12. I find it easy to imagine how a woman might feel while she is shouted at or called names by her partner.		0.63, 0.82
13. I can understand how difficult it might be for a woman to live with an aggressive partner.		0.74, 0.80
14. I can tell what a woman hurt by her partner feels even when she is masking her true emotion.		0.65, 0.78
15. I find it easy to recognize emotions that a woman hurt by her partner might feel.		0.68, 0.78
16. I can tell how a woman hurt by her partner is feeling by listening to the tone of her voice.		0.61, 0.78

Note. All factor loadings are statistically significant at $p < 0.001$

Correlations between two latent factors were $r = 0.53$ for T1 and $r = 0.67$ for T2 data collection, which indicates a significant overlap between the variables. As suggested by Boduszek and Debowska (2016), when the best model fit is multidimensional and some factors are highly correlated (0.50 and above), a differential predictive validity test has to be conducted to verify whether the factors correlate differentially with external criteria. In order to test the differential predictive validity, we specified and tested the structural equation model with two exogenous variables (affective and cognitive responsiveness factors of the Ni3: VRA) collected at T1 and one endogenous variable (caring/cooperative behavior) collected at T2. The fit of the proposed model was satisfactory ($\chi^2 = 352.73$, $df = 249$, $p < 0.05$, CFI = 0.91, TLI = 0.90, RMSEA = 0.049, 90% CI = 0.037/0.061, SRMR = 0.07). Affective responsiveness ($\beta = 0.23$, $p < 0.05$) and cognitive responsiveness ($\beta = -0.18$, $p > 0.05$) correlate differentially with caring/cooperative behavior. These results confirm that affective and cognitive responsiveness factors should be included as separate factors in the Ni3: VRA.

In order to assess the internal reliability of the Ni3: VRA subscales, composite reliability was performed using data collected at two time points. Results suggest that both subscales of the Ni3: VRA (affective responsiveness: T1 = 0.89 and T2 = 0.94; cognitive responsiveness: T1 = 0.85 and T2 = 0.93) demonstrate very good internal reliability.

Correlations between the test and retest scores on both subscales were estimated using Pearson product-moment correlation coefficient. The T1 and T2 stability correlation for both subscales met the recommended benchmarks for reliable use (affective responsiveness $r = 0.80$; cognitive responsiveness $r = 0.74$).

Discussion

Prior research reported victim empathy to be negatively associated with violent offending, including crimes of sexual nature against women and children (Fernandez et al., 1999; Fernandez & Marshall, 2003). Lack of victim empathy may also elucidate why not all individuals who engage in intimate partner violence (IPV) are violent outside their romantic relationships. In considering the above, it appears that victim empathy should be the focus of IPV prevention programs targeted at young people. However, a reliable measure of empathy toward IPV victims which would be appropriate for young people is currently missing. Therefore, the primary aim of the current study was to address this substantial research void by creating and validating the None in Three Victim Responsiveness Assessment (Ni3: VRA).

To investigate the factor structure of the Ni3: VRA, we tested two theoretically sound factorial solutions, including a one-factor model, with all scale items loading on a general victim responsiveness factor, and a two-factor model, where eight scale items are loaded on affective responsiveness factor and eight remaining items on cognitive responsiveness factor. Results indicated that the only acceptable solution for the Ni3: VRA ratings at both time points was the two-factor model. Additionally, test-retest correlation confirmed the reliability of the Ni3: VRA over time. This finding is in line with prior global and victim empathy research suggesting that affective and cognitive empathy ought to be considered as two separate facets (Davis, 1983; Fernandez et al., 1999; Smith & Frieze, 2003).

Affective and cognitive responsiveness Ni3: VRA factors were found to be highly associated with each other. Consequently, a test of differential predictive validity was necessary to determine theoretical, as opposed to statistical, superiority of the extracted factors (see Boduszek & Debowska, 2016). Structural equation modelling with affective and

cognitive responsiveness scores collected at T1 as two exogenous variables and caring/cooperative behavior scores collected at T2 as one endogenous variable, revealed that affective responsiveness was a significant positive predictor of caring/cooperative behavior. The association between cognitive responsiveness and caring/cooperative behavior was negative yet statistically non-significant, suggesting that the two facets of the Ni3: VRA should be considered as two separate dimensions. The findings are consistent with prior research demonstrating that prosocial behavior in children is influenced by global affective empathy (e.g., Belacchi & Farina, 2012; Eisenberg, 1992). Since a positive link between both global empathy dimensions and prosocial behavior was reported in research with adults (e.g., Lockwood, Seara-Cardoso, & Viding, 2014), it appears that the ability to assume another person's perspective and act accordingly may develop later in life.

Several sources indicated that children who witnessed domestic violence are more likely to use violence in their adult intimate relationships than children without such experiences (e.g., Jewkes et al., 2002; Whitfield et al., 2003). Deficits in victim empathy may be a function of exposure and, subsequently, habituation to violence – a process whereby young people's responsiveness to victims is reduced due to repeated exposure to violence (see Tella et al., 2017 for an experimental exploration of the phenomenon). Although victim empathy construct appears crucial in assessing the extent of young people's desensitization to IPV, especially in world regions where such violence is rampant, no prior research attempted to design and validate an appropriate measurement tool. As such, the results of the current study have important practical and research implications. More specifically, we suggest that the Ni3: VRA can be used as an assessment of risk of future violence in intimate relationships. Next, Ni3: VRA ratings can be used to inform the design of IPV prevention strategies as well as programs raising awareness of IPV among young people. For example, deficits in cognitive responsiveness within a population of interest, may suggest that

prevention should place a special emphasis on elucidating experiences of IPV from the victim's perspective to build a better understanding of how a person suffering IPV may feel. The Ni3: VRA can subsequently be used as an outcome measure in effectiveness evaluations of such programs. Additionally, we envisage that the Ni3: VRA scores can provide evidence for targeting individuals with the poorest outcomes for early prevention. Since exposure to certain risk factors may be predictive of a stronger or weaker treatment response (Loeber, 1990), we recommend that future research further explores variables associated with victim empathy, resulting in comprehensive and efficient preventive approaches.

As with all research, our study is not free from limitations. First, research participation was dependent upon gaining parental consent, which could have resulted in a biased sample. Since minors have no legal right to consent, however, this limitation could not be overcome. Second, the Ni3: VRA validation was based on a sample of young people from Barbados and Grenada. Future research should examine the Ni3: VRA factor structure and factorial invariance across samples drawn from different cultural settings. Additionally, Ni3: VRA is a self-report measure and hence subject to response bias. Nonetheless, feelings and emotional reactions are most reliably reported by participants themselves. Another methodological limitation pertains to the fact that the surveys were completed in schools and administered by teachers. As such, children could have felt that their responses were not anonymous and could have responded in a socially desirable manner. To address this issue, the researchers made it clear to participants both in writing and verbally that their responses were anonymous and that individual responses would not be shared with anyone, including teachers. Finally, predictive utility of the Ni3: VRA facets was tested using a generic caring/cooperative behavior measure as opposed to a behavioural measure specific to IPV. However, an IPV behavioral measure would not be appropriate in research with youth.

In spite of the aforementioned limitations, the present research adds to the literature in the area of victim empathy and its psychometrics. We designed a victim responsiveness measure, the Ni3: VRA, for use with young people. We showed that the Ni3: VRA scores are best captured by two factors (affective and cognitive responsiveness). The two factors evidenced a good differential predictive utility for caring/cooperative behavior. The Ni3: VRA can be used for the evaluation of preventive strategies aimed at reducing the rates of IPV.

References

- Alexander, D. (2017). *Statistical analysis: Incidents of domestic violence in Grenada, in which the consumption of drugs was identified, 2012 to 2016*. Retrieved from <http://www.gov.gd/egov/pdf/ncodc/docs/stats-analysis-domestic-violence-2012-2017.pdf>
- Bandura, A. J. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Beckett, R. C., & Fisher, D. (1994, November). Assessing victim empathy: A new measure. In *13th annual conference of the Association for the Treatment of Sexual Abusers*, San Francisco.
- Belacchi, C., & Farina, E. (2012). Feeling and thinking of others: Affective and cognitive empathy and emotion comprehension in prosocial/hostile preschoolers. *Aggressive Behavior, 38*(2), 150-165. <https://doi.org/10.1002/ab.21415>
- Bentler, P. M. (1990). Comparative fit indices in structural models. *Psychological Bulletin, 217*, 238-246.
- Boduszek, D., & Debowska, A. (2016). Critical evaluation of psychopathy measurement (PCL-R and SRP-III/SF) and recommendations for future research. *Journal of Criminal Justice, 44*, 1-12.
- Boduszek, D., Debowska, A., Dhingra, K., & DeLisi, M. (2016). Introduction and validation of Psychopathic Personality Traits Scale (PPTS) in a large prison sample. *Journal of Criminal Justice, 46*, 9-17. <https://doi.org/10.1016/j.jcrimjus.2016.02.004>
- Bosworth K., & Espelage, D. (1995). *Teen Conflict Survey*. Bloomington, IN: Center for Adolescent Studies, Indiana University. Scale was published in Dahlberg, L.L., Toal, S.B., Swahn, M., Behrens, C.B. (2005). *Measuring Violence-Related Attitudes*,

Behaviors, and Influences Among Youths: A Compendium of Assessment Tools, 2nd ed. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.

Bott, S., Guedes, A., Goodwin, M., & Mendoza, J. A. (2012). *Violence against women in Latin America and the Caribbean: A comparative analysis of population-base.* Retrieved from <http://www2.paho.org/hq/dmdocuments/violence-against-women-lac.pdf>

Brown, S., Harkins, L., & Beech, A. R. (2012). General and victim-specific empathy: Associations with actuarial risk, treatment outcome, and sexual recidivism. *Sexual Abuse: A Journal of Research and Treatment, 24*(5), 411-430.
<https://doi.org/10.1177/1079063211423944>

Campbell, J. C. (2002). Health consequences of intimate partner violence. *The Lancet, 359*(9314), 1331-1336. [https://doi.org/10.1016/S0140-6736\(02\)08336-8](https://doi.org/10.1016/S0140-6736(02)08336-8)

Caribbean Development Research Services (CADRES). (2014). *Social survey on violence against children and women: Attitudes to corporal punishment, child sexual abuse and domestic violence in Barbados.* Retrieved from https://www.unicef.org/easterncaribbean/ECAO_Barbados_Report_Social_Survey_on_Violence_against_Children_and_Women.pdf

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*(1), 113-126. <http://dx.doi.org/10.1037/0022-3514.44.1.113>

- Debowska, A., Boduszek, D., Dhingra, K., Kola, S., & Meller-Pruncka, A. (2015). The role of psychopathy and exposure to violence in rape myth acceptance. *Journal of Interpersonal Violence, 30*(15), 2751-2770.
<https://doi.org/10.1177/0886260514553635>
- Debowska, A., Boduszek, D., Kola, S., & Hyland, P. (2014). A bifactor model of the Polish version of the Hare Self-Report Psychopathy Scale. *Personality and Individual Differences, 69*, 231-237. <https://doi.org/10.1016/j.paid.2014.06.001>
- Deitz, S. R., Blackwell, K. T., Daley, P. C., & Bentley, B. J. (1982). Measurement of empathy toward rape victims and rapists. *Journal of Personality and Social Psychology, 43*(2), 372-384. doi:10.1037/0022-3514.43.2.372
- Diamantopoulos, A., & Siguaaw, J.A. (2000), *Introducing LISREL*. London: Sage Publications.
- Eisenberg, N. (1992). *The caring child*. Cambridge, MA: Harvard University Press.
- Eisenberg, N. (2000). Emotion regulation and moral development. *Annual Review of Psychology, 51*, 665–697. doi: 10.1146/annurev.psych.51.1.665
- Fernandez, Y. M., & Marshall, W. L. (2003). Victim empathy, social self-esteem, and psychopathy in rapists. *Sexual Abuse: A Journal of Research and Treatment, 15*(1), 11-26. <https://doi.org/10.1023/A:1020611606754>
- Fernandez, Y. M., Marshall, W. L., Lightbody, S., & O’Sullivan, C. (1999). The Child Molester Empathy Measure: Description and examination of its reliability and validity. *Sexual Abuse: A Journal of Research and Treatment, 11*(1), 17-31.
<https://doi.org/10.1023/A:1021376711828>

- Feshbach, N. (1975). Empathy in children: Some theoretical and empirical considerations. *Counselling Psychologist, 5*(2), 25–30. <https://doi.org/10.1177/001100007500500207>
- Fisher, D., & Howells, K. (1993). Social relationships in sexual offenders. *Sexual and Marital Therapy, 8*(2), 123–136. <https://doi.org/10.1080/02674659308408188>
- Fox, B. H., Perez, N., Cass, E., Baglivio, M. T., & Epps, N. (2015). Trauma changes everything: Examining the relationship between adverse childhood experiences and serious, violent and chronic juvenile offenders. *Child Abuse & Neglect, 46*, 163-173. <http://dx.doi.org/10.1016/j.chiabu.2015.01.011>
- Foubert, J. D., & Newberry, T. (2006). Effects of Two Versions of an Empathy-Based Rape Prevention Program on Fraternity Men’s Survivor Empathy, Attitudes, and Behavioral Intent to Commit Rape or Sexual Assault. *Journal fo College Student Development, 47*(2), 133-148. doi: 10.1353/csd.2006.0016
- George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed.). Boston: Allyn & Bacon.
- Holtzworth-Munroe, A., & Meehan, J. C. (2004). Typologies of men who are maritally violent scientific and clinical implications. *Journal of Interpersonal Violence, 19*(12), 1369-1389. doi: 10.1177/0886260504269693
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.
- Ireland, T. O., & Smith, C. A. (2009). Living in partner-violent families: Developmental links to antisocial behavior and relationship violence. *Journal of Youth and Adolescence, 38*(3), 323-339. doi: 10.1007/s10964-008-9347-y

- Jeremiah, R. D., & Gamache, P. E. (2013). Beyond behavioral adjustments: How determinants of contemporary Caribbean masculinities thwart efforts to eliminate domestic violence. *International Journal of Men's Health, 12*(3), 228-244.
<https://search.proquest.com/docview/1504813122?accountid=13828>
- Jeremiah, R. D., Quinn, C. R., & Alexis, J. M. (2017). Exposing the culture of silence: Inhibiting factors in the prevention, treatment, and mitigation of sexual abuse in the Eastern Caribbean. *Child Abuse & Neglect, 66*, 53-63.
<http://dx.doi.org/10.1016/j.chiabu.2017.01.029>
- Le Franc, E., Samms-Vaughan, M., Hambleton, I., Fox, K., & Brown, D. (2008). Interpersonal violence in three Caribbean countries: Barbados, Jamaica, and Trinidad and Tobago. *Revista Panamericana de Salud Pública, 24*(6), 409-421.
<http://dx.doi.org/10.1590/S1020-49892008001200005>
- Lockwood, P. L., Seara-Cardoso, A., & Viding, E. (2014). Emotion regulation moderates the association between empathy and prosocial behavior. *PLoS ONE, 9*(5), e96555.
<https://doi.org/10.1371/journal.pone.0096555>
- Loeber, R. (1990). Development and risk factors of juvenile antisocial behavior and delinquency. *Clinical Psychology Review, 10*(1), 1-41. [https://doi.org/10.1016/0272-7358\(90\)90105-J](https://doi.org/10.1016/0272-7358(90)90105-J)
- Mann, R. E., & Barnett, G. D. (2013). Victim empathy intervention with sexual offenders: Rehabilitation, punishment, or correctional quackery? *Sexual Abuse: A Journal of Research and Treatment, 25*(3), 282-301. <https://doi.org/10.1177/1079063212455669>

- Max, W., Rice, D. P., Finkelstein, E., Bardwell, R. A., & Leadbetter, S. (2004). The economic toll of intimate partner violence against women in the United States. *Violence and Victims, 19*(3), 259-272. <https://doi.org/10.1891/vivi.19.3.259.65767>
- Muthén, L. K., & Muthén, B. O. (1998 – 2015). *Mplus user guide* (7th ed.). Los Angeles, CA: Muthén & Muthén.
- Olsen-Fulero, L., & Fulero, S. M. (1997). Commonsense rape judgments: An empathy-complexity theory of rape juror story making. *Psychology, Public Policy, and Law, 3*(2-3), 402-427. doi:10.1037/1076-8971.3.2-3.402
- Raykov, T. (1997). Estimation of composite reliability for congeneric measures. *Applied Psychological Measurement, 21*(2), 173-184
- Reid, S.D., Reddock, D. & Nickenig, T. (2014). Breaking the Silence of Child Sexual Abuse in the Caribbean: A Community-Based Action Research Intervention Model. *Journal of Child Sexual Abuse, 23*(3), 256-277.
<http://dx.doi.org/10.1080/10538712.2014.888118>
- Reniers, R. L. E. P., Corcoran, R., Drake, R., Shryane, N. M., & Völlm, B. A. (2011). The QCAE: A Questionnaire of Cognitive and Affective Empathy. *Journal of Personality Assessment, 93*(1), 84-95. <https://doi.org/10.1080/00223891.2010.528484>
- Sherretts, N., & Willmott, D. (2016). Construct validity and dimensionality of the measure of criminal social identity using data drawn from American, Pakistani, and Polish inmates. *Journal of Criminal Psychology, 6*(3), 134-143. <https://doi.org/10.1108/JCP-07-2016-0020>

- Smith, C. A., & Frieze, I. H. (2003). Examining rape empathy from the perspective of the victim and the assailant. *Journal of Applied Social Psychology, 33*(3), 476-498.
doi:10.1111/j.1559-1816.2003.tb01907.x
- Stith, S. M., Rosen, K. H., Middleton, K. A., Busch, A. L., Lundeberg, K., & Carlton, R. P. (2000). The intergenerational transmission of spouse abuse: A meta-analysis. *Journal of Marriage and Family, 62*(3), 640-654. doi: 10.1111/j.1741-3737.2000.00640.x
- Tella, R. D., Freira, L., Gálvez, R. H., Schargrodsky, E., Shalom, D., & Sigman, M. (2017). Crime and violence: Desensitization in victims to watching criminal events. *Journal of Economic Behavior & Organization. https://doi.org/10.1016/j.jebo.2017.10.005*
- Whitfield, C. L., Anda, R. F., Dube, S. R., & Felitti, V. J. (2003). Violent childhood experiences and the risk of intimate partner violence in adults: Assessment in a large health maintenance organization. *Journal of Interpersonal Violence, 18*(2), 166-185.
<https://doi.org/10.1177/0886260502238733>
- World Health Organization (WHO). (2009). *Violence prevention: The evidence. Changing cultural and social norms that support violence*. Retrieved from http://www.who.int/violence_injury_prevention/violence/norms.pdf
- World Health Organization (WHO). (2013). *Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence*. Retrieved from http://apps.who.int/iris/bitstream/10665/85239/1/9789241564625_eng.pdf
- Zimmermann, J., Altenstein, D., Krieger, T., Holtforth, M. G., Pretsch, J., Alexopoulos, J., . . . Markon, K. E. (2014). The structure and correlates of self-reported DSM-5

maladaptive personality traits: Findings from two German-speaking samples. *Journal of Personality Disorders*, 28, 518-540. doi:10.1521/pedi_2014_28_130