Journal of Family Violence (2026) 41:1477–1486
https://doi.org/10.1007/s10896-025-00807-2

ORIGINAL ARTICLE

Differences between Recidivists and Non-recidivists Attending a community-based Domestic Violence Perpetrator Program in the Dominican Republic: A Brief Report

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Accepted: 30 December 2024 / Published online: 15 January 2025
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Abstract

Purpose Previous research in Western samples has found differences between recidivists and non- recidivists among individuals who attended intervention programs designed to reduce intimate partner violence (IPV) offending. However, the extent to which similar characteristics differentiate these groups in a non-Western sample is unknown.

Methods This brief report includes data collected by psychologists from men referred to a cognitive behavioral program ($n = 1{,}380$) in the Dominican Republic. Bivariate and multivariate logistic regression analyses were conducted on the data.

Results Although specific IPV-related factors such as attitudes towards women and jealousy were significantly associated with recidivism at the bivariate level, these effects disappeared when they were controlled by other relevant predictors in the multivariate model. Instead, general criminogenic factors such as employment status, alcohol consumption, relationships with parents and violent offending towards others were the key factors explaining IPV recidivism.

Conclusions IPV recidivism is best explained by accounting for those factors which are common to violent re-offending in general. The implications of these findings are discussed in terms of theory and program intervention practices.

Keywords Intimate Partner Violence · Recidivism · Perpetrator Programs · General Violence · Caribbean Region

Introduction

Intimate partner violence (IPV) is a major health problem worldwide. Between 30% and 38% of all women who have been in an intimate relationship have experienced physical and/or sexual violence from their intimate partners (The World Health Organization (WHO), 2013). High rates of IPV, reoffending, and femicide are reported in the Latin America and Caribbean region (CEPAL, 2023; Pérez, 2011). In the Dominican Republic, 2.4 per 100.000 women were killed by their (ex) partners in 2021 (CEPAL, 2023); this is the second highest domestic homicide rate (behind Honduras) in Latin America (CEPAL, 2023). The prevention of IPV in Latin America and the Caribbean region has mainly focused on victims' support and changing the gendered norms and attitudes of men (Morrison et al., 2004). However, the General Attorney's Office in the Dominican Republic established the Centre of Behavioral Intervention for Men in 2008 as an injunction for IPV perpetrators and alternative sanction to imprisonment (for program details, see Vergés, 2022a). This program aims to complement the support and prevention work provided to victims by other agencies. Over time it has become clear that a proportion of program participants will be referred again to the program because of a new incident of IPV. However, the characteristics of these IPV recidivists have not yet been systematically examined.

In general, recidivist offenders are characterized by antisocial tendencies and the development of criminal behavior at an early age, mainly caused by biological and social factors (e.g., genetic, neuropsychological problems, different brain activity, low verbal and spatial abilities, abuse and neglect,

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poverty and deviant parents) (Moffitt, 1993, 2007; Raine et al., 2005; Savage et al., 2013). Research demonstrates that when neurobiological vulnerabilities interact with high-risk environments, the odds of criminal behavior of any type increase (Beauchaine et al., 2010; Meier et al., 2008). Specific factors associated with IPV recidivism have been identified, including individual (e.g., age, socioeconomic status, employment, cohabitation, antisocial behavior, anger, low self-esteem, hostile cognitions/attributions, marital discord, negative emotionality, jealousy and substance abuse) and historical-family factors (e.g., being abused as child, experiencing trauma, exposure to IPV between parents, family conflicts) (Capaldi et al., 2012; Gannon et al., 2019; Sartin et al., 2006). However, many predictor factors of recidivism among IPV perpetrators are the same criminogenic risks that increase re-offending in other criminal populations (e.g., young, unstable lifestyle, substance use and criminal history) (Hanson & Wallace-Capretta, 2004). Even after a specific IPV intervention, factors associated with recidivism commonly include those associated with general recidivism, such as personality disorders, psychiatric history, substance abuse, and child abuse in the family of origin (Tollefson & Gross, 2006).

General criminogenic risk factors are also important for understanding IPV perpetration and victimization (as distinct from IPV recidivism). For instance, an overview of 22 meta-analyses found that neuropsychiatric disorders (especially substance use disorder) and witnessing or being a victim of violence in childhood were the strongest risk factors for IPV, but with weak effect (Fazel et al., 2018). Recently, a systematic review on the longitudinal predictors of IPV found that experiencing abuse in childhood, especially neglect, had an impact on both IPV perpetration and victimization. Additionally, parent-child relationships and discipline, adolescent peer risks, gender normative attitudes, and alcohol misuse had an impact on IPV perpetration, but not antisocial behavior in childhood, nor family socioeconomic status (Curtis et al., 2022). Finally, the main risk factors for IPV perpetrators with substance use problems (compared to those with no substance use problems) were clinical symptoms (e.g., anger and impulsivity), personality disorders, poorer executive functions, having experienced more stressful life events, higher exposure to childhood trauma, lower intimate social support, and higher responsibility attributed to the offenders' personal context (Expósito-Álvarez et al., 2023). Not only should IPV interventions consider both IPV-specific as well as more general risk factors to improve their effectiveness (Bonta & Andrews, 2017), but also these factors need to be examined in samples of non-western perpetrators of IPV.

Identifying the correlates of IPV recidivism and understanding their specificity to IPV compared to general violent offending is essential for improving the intervention implemented in the Dominican Republic. Specifically, to understand the extent to which the program should be tailored to address IPV risk factors specifically versus a focus on responding to broader criminogenic issues. Thus, the main objective of this brief report was to analyze a comprehensive set of variables that include those associated with both IPV and general violent re-offending in a sample of men referred to an intervention program in the Dominican Republic.

Method

Participants

This brief report used an initial sample of $n = 1{,}500$ casefiles from individuals who received treatment at the Centre of Behavioral Intervention for Men (Centro de Intervención Conductual para Hombres, CICH) between 2014 and 2018. The semi-structured interview was face-to-face, conducted in a private room at the CICH, as part of the clinical evaluation before starting the program. For recidivist participants, the data from the latest interview was included. The data was collected by CICH psychologists, anonymized and sent to the research team. Ethical approval for the research was granted by the School of Social Sciences Research Ethics Committee of Cardiff University on 14 July 2021 (ref SREC/4281), and the General Attorney's Office of the Dominican Republic also officially endorsed the project.

After removing missing values and recoding variables, the final sample was $n = 1{,}380$. The sample was split into recidivist and non-recidivist men. The age range of these two groups was not significantly different as 86% of each group was between 26 and 59 years old. Education was also similar, as nearly half of non-recidivists (47%) and half of recidivists (51%) had a high school education. Employment was significantly higher for non-recidivists (91%) compared to recidivists (86%).

Instruments

The database contains variables from the General Structured Clinical Interview of Batterers (Echeburua & Fernandez-Montalvo, 1997), which contains five domains related to demographic and employment characteristics (13 items), childhood and development (15 items), previous maltreatment problems with ex-partners (5 items), the current situation with his partner and family (33 items), health problems, previous offences, and social relations (18 items). Before starting the program, psychologists evaluated each user using the above-mentioned interview (and other instruments not included in this report). From this

interview the following independent variables were selected based on previous studies and the information available in the database: age, employment, civil status, having biological children with the victim, restraining order, childhood maltreatment, relationship with mother and father in childhood, witnessed parents' violence, mental illness, alcohol use, attitudes against women, jealousy, and type of violence towards his partner, violence towards others (i.e., family member, neighbors, strangers, victims' children). We included age as continuous variable and the following dichotomous variables: *actual employment* (0 = no, 1 = yes); *mental/physical illness* (0 = no, 1 = yes); *biological children* with the victim (0 = no, 1 = yes); having a *restraining order* (0 = no, 1 = yes); having ever suffered *child abuse* (0 = no, 1 = yes), which combined three dichotomic questions of life prevalence of physical abuse, maltreatment, and sexual abuse. *Relationship with mother in childhood* was a variable based on multiple indicators reflecting the following categories (1 = close, 2 = respectful, 3 = detached, 3 = conflicting), which we included as dichotomic (0 = close or respectful, 1 = detached or conflicting) (likewise for *Relationship with father*). Frequency of *alcohol consumption* included an item (1 = one unit almost every day, 2 = weekly, 3 = every two weeks, 4 = monthly, 5 = occasionally or in social events), which was recoded (1 = daily or weekly, 0 = rest of categories). We also included four measures regarding *the user's involvement in violence toward others* (family member, neighbors, strangers, victims' children) (0 = no, 1 = yes), and whether they reported committing at least one type of *non-intimate partner violence* (0 = no, 1 = yes).

We also built the following composite variables to measure the user's attitudes: (i) *attitudes toward women involving justifications of violence* averaged eight dichotomic items including provocations, infidelity, conflicts about children, stress, etc.; (ii) *intimate partner violence between perpetrators' parents* averaging eight dichotomic items involving physical violence, maltreatment, psychological violence, etc.; (iii) *violence against previous partners* averaging eight types of violent behaviors including physical violence, financial violence, harassment, etc.; and (iv) *jealousy index* that averaged three variables involving the user's perception of their own jealousy, partner's jealousy, and infidelity. All indexes were constructed calculating the average mean of items excluding every case that has one-third or more missing values in the items composing the index.

The dependent variable, recidivism, was operationalized by psychologists of the program as individuals who received a second referral to the program due a conviction under the Ley 24–97, Ley de Violencia Contra La Mujer e Intrafamiliar [24–97 Act, Violence against Women and Intrafamilial Act].

Statistical Analysis

First, we conducted a series of bivariate statistical analyses to determine the significance of the relationships between the different factors and recidivism. All variables considered were categorical, so we used Chi-square test to compare recidivists and non-recidivists. Second, we assessed the effect of multicollinearity in our results using the variance inflation factor (VIF). If VIF values are greater than 5, the independent variables included in the regression model are too highly associated (O'Brien, 2007), which might affect the reliability, stability, and precision of the model's estimates. Third, we conducted a blockwise logistic regression to identify the significant correlates of recidivism among users of the program by introducing them in a theoretically informed sequence. All statistical analyses were conducted using R Studio (R Core, 2013).

Results

Table 1 shows the descriptive statistics and results of the bivariate tests. Overall, users were males between the ages of 30 and 50, were employed when enrolled in the program, and had a restraining order against them. However, recidivists were more likely to be unemployed and to have a restraining order compared to non-recidivists. Two-thirds of the participants had biological children with the victim who reported the incident. Few participants exhibited conflicted relationships with their parents during childhood. Nevertheless, both groups showed slight differences in their relationships with both parents: recidivists were more likely to have distant or conflict-ridden relationships with their fathers, whereas the opposite was true for relationships with mothers. In other words, recidivists had closer and more respectful relationships with their mothers. Although there were no significant differences in alcohol use between non-recidivists and recidivists (30% and 49% respectively), the recidivist group exhibited a significantly higher proportion of mental or physical illnesses (27% vs. 18%).

Regarding experiences of violence between their parents, there were significant differences between the groups: 38% of recidivists witnessed IPV between their parents compared to 24% of non-recidivists. Moreover, there were differences between the groups across all types of violence. Recidivists also showed significant disparities in having suffered physical abuse (74%) or corporal punishment by teachers (25%) compared to non-recidivists (61% and 17% respectively). Both groups also displayed significant differences in committing violence against previous partners, across all forms of violence including physical, psychological, financial, etc. For instance, while only 8% of non-recidivists admitted to

Table 1 Differences between recidivist and non-recidivist users of the program

Variables	Non-Recidivists ($n=1079$)	Recidivists ($n=180$)	Chi^2 - t-test / p-value	Cramer – Cohen
User's age			3.93 (0.268)	0.054
Under 25	111 (10%)	23 (13%)		
26–30	155 (14%)	21 (12%)		
31–40	382 (36%)	73 (41%)		
41–50	259 (24%)	43 (24%)		
51 or older	163 (15%)	18 (10%)		
Employed	957 (91%)	155 (86%)	4.12 (0.042)	0.052
Biological children with victim	667 (66.1%)	122 (68.2%)	0.28 (0.593)	0.013
Restraining order	735 (78%)	157 (90%)	13.63 (0.000)	0.107
Alcohol (daily or weekly use)	229 (30.4%)	69 (49.3%)	2.78 (0.095)	0.045
Mental/physical illness	182(18%)	48 (27%)	8.70 (0.003)	0.082
Relationship with father			12.75 (0.005)	0.106
Close	324 (33%)	56 (34%)		
Respectful	326 (33%)	50 (30%)		
Distant	302 (31%)	44 (27%)		
Conflictive	29 (3%)	14 (8.5%)		
Relationship with mother			17.02 (0.000)	0.119
Close	461 (45%)	100 (58%)		
Respectful	226 (22%)	42 (24%)		
Distant	319 (31%)	28 (16%)		
Conflictive	21 (2%)	3 (2%)		
Witnessed domestic violence between parent and mother (any type)	246 (24%)	65 (38%)	15.16(0.000)	0.110
Physical	109 (10%)	35 (19%)	13.29 (0.000)	0.099
Verbal	229 (21%)	49 (27%)	3.23 (0.072)	0.047
Psychological	165 (15%)	53 (29%)	21.58 (0.000)	0.128
Emotional	50 (5%)	18 (10%)	8.69(0.003)	0.078
Space/social	10 (0.9%)	10 (6%)	21.14 (0.000)	0.121
Economic	13 (1%)	10 (6%)	16.28 (0.001)	0.105
Patrimonial	3 (0.3%)	4 (2%)	10.54 (0.010)	0.076
Experience of child abuse				
Physical abuse	647 (61%)	131 (74%)	9.75 (0.001)	0.087
Sexual abuse	40 (4%)	9 (5%)	0.60 (0.437)	0.163
Corporal punishment by teachers	184 (17%)	43 (25%)	5.07(0.024)	0.061
Jealousy				
He considered himself to be a jealous person	454 (44%)	94 (52%)	4.46 (0.034)	0.058
He considered his partner to be a jealous person	416 (44%)	92 (55%)	6.63 (0.010)	0.075
He believed that his partner has been unfaithful	432 (42%)	94 (52.5%)	6.60 (0.012)	0.071
Attitudes toward women (violence justifications)				
She provokes me	370 (34%)	70 (39%)	1.43 (0.231)	0.031
She is jealous	169 (16%)	39 (22%)	4.03 (0.045)	0.053
I am jealous	152 (14%)	36 (20%)	4.24 (0.039)	0.054
His partner's infidelity	138 (13%)	34 (19%)	4.86 (0.027)	0.058
Unemployment	3 (0.3%)	1 (0.5%)	0.37 (0.461)	0.000
Stress	50 (5%)	8 (4%)	0.01 (0.911)	0.000
She attacked me	115 (11%)	17 (9%)	0.24 (0.622)	0.010
Conflict over children	137 (13%)	23 (13%)	0.00 (0.976)	0.000
Violence against previous partner				
Physical	86 (8%)	51 (28%)	65.96 (0.000)	0.225
Verbal	238 (22%)	56 (31%)	7.06 (0.007)	0.072
Psychological	192 (18%)	88 (49%)	86.24 (0.000)	0.269
Emotional	60 (6%)	30 (17%)	28.67 (0.000)	0.147
Spatial/social	20 (2%)	16 (9%)	27.49 (0.000)	0.141
Financial	4 (0.4%)	4 (2%)	8.38 (0.017)	0.067

Table 1 (continued)

Variables	Non-Recidivists ($n=1079$)	Recidivists ($n=180$)	Chi^2 - t-test / p-value	Cramer – Cohen
Patrimonial	2 (0.2%)	3 (2%)	8.55 (0.023)	0.064
Sexual	2 (0.2%)	1 (0.6%)	0.89 (0.371)	0.003
Harassment	9 (0.8%)	8 (4%)	15.10 (0.001)	0.010
Violence against others				
Children in the household	54 (5%)	29 (16%)	30.90 (0.000)	
Brother-in-law or any other member of partner's family	79 (7%)	31 (17%)	18.96 (0.000)	0.119
Neighbor or acquaintance	44 (4%)	18 (10%)	11.56 (0.000)	0.091
Stranger	97 (9%)	41 (23%)	30.05 (0.000)	0.151

Note. Patrimonial violence refers to violence against goods (i.e., objects in the house), space/social violence refers to behaviors preventing women from going to specific places and/or meeting certain people (e.g., family, friends, colleagues)

The percentages for the Jealousy and Attitudes Toward Women variables correspond to affirmative answers

Fisher's exact test was used in variables that had low expected cell frequencies: *unemployment*, *financial*, *patrimonial*, *sexual*, and *harassment*

committing physical violence against previous partners, almost 30% of recidivists acknowledged this during their clinical interview. Recidivists exhibited slight but significant differences in most items related to jealousy and attitudes toward women, especially those concerning infidelity and whether he considers himself and/or his partner to be jealous Lastly, concerning violence against other types of victims, recidivists were significantly more likely to have been involved in violence toward children (16% vs. 5%), family members (17% vs. 7%), neighbors (10% vs. 4%), and strangers (23% vs. 9%)[1].

Table 2 shows the significant predictors of IPV recidivism. The initial model yielded a significant association between recidivism and both the jealousy and attitudes toward women that justify violence indices. However, when additional key correlates of intimate partner violence were introduced in the second model, these factors lost their statistical significance. This model highlighted the significance of several general criminogenic correlates: as expected, recidivists were more likely to have daily or weekly consumption of alcohol, more likely to be unemployed prior to program entry, more likely to exhibit multiple violent behaviors toward previous partners, and more likely to have worse relationships with their fathers during childhood. Unexpectedly, non-recidivists were more likely to have a worse relationship with their mothers in comparison with recidivists. The third model included an additional composite measure of violence against other (non-intimate partner) victims, which emerged as significant without changing any of the findings from the second model. Lastly, the fourth model separately included violence towards these different groups, revealing that recidivists were more likely to have committed acts of violence against relatives of their (intimate partner) victim, strangers, and children. Notably, no statistical differences were observed concerning violence against neighbors. The pseudo R^2 values indicated a low goodness-of- fit for the first model (Mcfadden = 0.026 and Nagelkerke = 0.037). However, the inclusion of more general criminogenic predictors in the second model significantly improved the fit (Mcfadden = 0.130 and Nagelkerke = 0.192). Further enhancement was achieved when measures of general violence were included, particularly as separate variables in the fourth model (Mcfadden = 0.162 and Nagelkerke = 0.233).

Discussion

The aim of this brief report was to identify the correlates of IPV recidivism amongst men referred to the cognitive behavioral program at the Centre of Behavioral Intervention for Men (Centro de Intervención Conductual para Hombres, CICH) in the Dominican Republic. Bivariate analysis showed that some offender characteristics such as age, employment, biological children with the victim, having restraining order, mental illness, alcohol use, relationship with mother and father in childhood, witnessing parental violence, childhood maltreatment, violence towards others (i.e., victim's relatives, neighbors/acquaintances, strangers, and children in the household), jealousy, and attitudes against women play a significant role in recidivism. Importantly, our series of logistic regression models showed that IPV-specific factors such as the attitudes towards women index and the jealousy index did not affect the likelihood of recidivism once general criminogenic factors such as alcohol consumption, relationships with parents, and violence towards others were included. However, it is noteworthy that the comprehensive measure of different types of IPV experienced by the victim was important for predicting IPV recidivism. Yet, it remains the case that IPV recidivism is

[1] Notes: Tests showed that multicollinearity was not a problem. The measure with the highest Variance Inflation Factor (VIF) value was the Jealousy Index (VIF = 1.206842). This is below the critical value of 5 (O'Brien, 2007), so no further analyses were conducted.

Table 2 Logistic regression models predicting recidivism amongst users of the program

	Model 1		Model 2		Model 3		Model 4	
	OR (p value)	***SE***	***OR (p value)***	***SE***	***OR (p value)***	***SE***	***OR (p value)***	***SE***
Jealousy index	3.565 (0.000)	0.307	1.829 (0.182)	0.453	2.044 (0.116)	0.456	2.125 (0.103)	0.463
Attitudes towards women index	5.094 (0.043)	0.803	1.504 (0.733)	1.200	0.834 (0.883)	1.235	0.529 (0.617)	1.271
Age of perpetrator			0.975 (0.650)	0.055	0.972 (0.604)	0.055	0.974 (0.634)	0.056
Employment			0.507 (0.038)	0.326	0.508 (0.039)	0.329	0.502 (0.042)	0.339
Biological children with victim			0.902 (0.668)	0.240	0.891 (0.633)	0.242	0.815 (0.414)	0.251
Restraining order			1.864 (0.090)	0.367	1.693 (0.152)	0.368	1.667 (0.167)	0.369
Mental illness			1.373 (0.227)	0.262	1.409 (0.197)	0.266	1.310 (0.323)	0.273
Alcohol consumption			2.280 (0.000)	0.230	2.216 (0.000)	0.232	2.158 (0.001)	0.236
Relationship with father			1.921 (0.010)	0.255	1.842 (0.018)	0.259	1.802 (0.026)	0.264
Relationship with mother			0.384 (0.002)	0.310	0.436 (0.008)	0.317	0.422 (0.007)	0.322
Witnessed violence between parents index			1.758 (0.333)	0.58	1.567 (0.448)	0.592	1.341 (0.635)	0.619
Suffering violence as child index			1.392 (0.203)	0.260	1.214 (0.466)	0.266	1.198 (0.497)	0.265
Types of violence suffered by partner index			9.567 (0.000)	0.647	7.623 (0.002)	0.660	5.438 (0.013)	0.681
Violence toward others index					1.966 (0.004)	0.238	-	-
Violence toward victim's relatives							1.982 (0.044)	0.340
Violence toward neighbors/ acquaintances							1.600 (0.278)	0.433
Violence toward strangers							1.841 (0.041)	0.299
Violence toward children							3.474 (0.000)	0.367
R McFadden		*0.026*		*0.130*		*0.146*		*0.162*
R Nagelkerke		*0.037*		*0.192*		*0.209*		*0.233*
N		*1207*		*633*		*648*		*648*

best explained by accounting for those factors which are common to violent re-offending in general.

These findings have important theoretical and rehabilitation implications, especially in the Latin American and Caribbean regions where public policies, including rehabilitation policies, are generally based on the idea that the fundamental correlate of IPV is the patriarchy or gender/cultural attitudes (Esquivel & da Silva, 2016). Findings from our research challenge this long-standing belief, given that attitudes towards women and jealousy were shown to have no effect on recidivism. However, we caution against entirely ruling out the possibility that such attitudes have an impact upon IPV recidivism. For example, a review identified three mechanisms and six pathways between infidelity, romantic jealousy and IPV (Pitchon et al., 2020) and a recent study in Ecuador showed that male jealousy was associated with controlling behaviors and sexual IPV (Buller et al., 2023). The particular methodological features of our study, such as the instrument used and the lack of distinction among IPV types, should be considered when determining whether and how this finding should inform future rehabilitation policy in the Dominican Republic Conversely, this study clearly underscored the importance of addressing alcohol consumption within the program delivered in the Dominican Republic, as this significantly increased the likelihood of recidivism. Evidence shows that programs that effectively

Table 3 Logistic regression models predicting recidivism amongst users of the program

	Model 1			Model 2			Model 3			Model 4		
	B	***SE***	***Wald***	***B***	***SE***	***Wald***	***B***	***SE***	***Wald***	***B***	***SE***	***Wald***
Jealousy index	1.271 (0.000)	0.307	17.121	0.604 (0.182)	0.453	1.774	0.715 (0.116)	0.456	2.464	0.753 (0.103)	0.463	2.653
Attitudes towards women index	1.628 (0.043)	0.803	4.114	0.408 (0.733)	1.200	0.116	−0.181 (0.883)	1.235	0.022	−0.636 (0.617)	1.271	0.251
Age of perpetrator				−0.025 (0.650)	0.055	0.206	−0.029 (0.604)	0.055	0.268	−0.027 (0.634)	0.056	0.226
Employment				−0.679 (0.038)	0.326	4.325	−0.678 (0.039)	0.329	4.256	−0.689 (0.042)	0.339	4.122
Biological children with victim				−0.103 (0.668)	0.240	0.184	−0.115 (0.633)	0.242	0.227	−0.205 (0.414)	0.251	0.667
Restraining order				0.623 (0.090)	0.367	2.885	0.526 (0.152)	0.368	2.044	0.511 (0.167)	0.369	1.917
Mental illness				0.317 (0.227)	0.262	1.462	0.343 (0.197)	0.266	1.664	0.270 (0.323)	0.273	0.977
Alcohol consumption				0.824 (0.000)	0.230	12.835	0.796 (0.000)	0.232	11.800	0.769 (0.001)	0.236	10.656
Relationship with father				0.653 (0.010)	0.255	6.555	0.611 (0.018)	0.259	5.574	0.589 (0.026)	0.264	4.978
Relationship with mother				−0.956 (0.002)	0.310	9.506	−0.830 (0.008)	0.317	6.881	−0.863 (0.007)	0.322	7.168
Witnessed violence between parents index				0.564 (0.333)	0.583	0.935	0.450 (0.448)	0.592	0.575	0.294 (0.635)	0.619	0.225
Suffering violence as child index				0.331 (0.203)	0.260	1.620	0.194 (0.466)	0.266	0.532	0.180 (0.497)	0.265	0.462
Types of violence suffered by partner index				2.258 (0.000)	0.647	12.174	2.031 (0.002)	0.660	9.466	1.693 (0.013)	0.681	6.179
Violence toward others index							0.676 (0.004)	0.238	8.048	-	-	
Violence toward victim's relatives										0.684 (0.044)	0.340	4.045
Violence toward neighbors/ acquaintances										0.470 (0.278)	0.433	1.180
Violence toward strangers										0.611 (0.041)	0.299	4.181
Violence toward children										1.245 (0.000)	0.367	11.532
R McFadden			*0.026*			*0.130*		*0.146*				*0.162*
R Nagelkerke			*0.037*			*0.192*		*0.209*				*0.233*
N			*1207*			*633*		*648*				*648*

address substance misuse reduce the likelihood of recidivism (Sanchez de Ribera & Abizanda, 2020). Furthermore, programs developed to integrate intervention components targeting substance misuse and IPV simultaneously have been shown to be effective in the UK (Gilchrist et al., 2021).

The finding that offenders who had a positive relationship with their mothers are at risk of recidivism is puzzling because it does not align with attachment theory (Bowlby, 1969), which posits that secure attachment in early childhood is vital for survival and influences cognitions, affect, and behavior within intimate relationships (Dutton & White, 2012). However, reviews examining the relationship between attachment and IPV perpetration provide mixed results due to methodological differences. For instance, a review found no significant associations between insecure attachment and IPV victimization or perpetration (Velotti et al., 2018), whereas a recent meta-analysis found that anxious, avoidant, and disorganized attachment styles were associated with both physical IPV perpetration and victimization (Spencer et al., 2021). A study including 200 men enrolled in the Dominican Republic program found that anxious and avoidant attachment was associated with alexithymia (i.e., problems recognizing, understanding, and describing emotions) and the relationship with the mother in childhood (Vergés, 2022b). However, not only do mothers play a significant role in the emotional development of children, so to do fathers. For instance, Dutton (1994) suggested that when the son is rejected by the father a weak identity and sense of self can result, and Dick (2004) found a significant relationship between men's emotional relationship with their fathers and self-esteem. According to our results, the role of the mother as a protective factor mitigating the negative influence of the father is not supported because men kept perpetrating IPV even when they had positive relationships with their mothers. A possible explanation is that if mothers also suffer violence, they are not able to form a secure attachment with their children (Dick, 2004), so future studies should explore the interactive role of each parent in explaining the perpetration of IPV.

Our findings regarding the relationship between IPV and general violent offending corroborates previous longitudinal studies showing that IPV can be part of a general antisocial behavior pattern or a general criminal career (Verbruggen et al., 2019, 2022a, b). In this sense, Moffit's dual taxonomy theory (Moffitt, 1993, 2007) postulates that there is a subset of offenders, life-course persistent offenders (LCP), that can be distinguished from other offenders (adolescent limited offenders [ALO]), especially in their levels of recidivism and violence. Moffitt's theory on LCP offenders proposes that this group of offenders (compared to ALO) begin to behave antisocially early in childhood and continue this behavior into adulthood because of neuro-developmental processes and family adversity beginning in childhood. LCP offenders commit a variety of crimes, including violent crimes (Moffitt, 1993, 2007; for empirical evidence of this theory see Moffitt, 2018). According to this theory, LCP are more at risk of committing IPV than other offender groups, and some longitudinal studies support this proposition by showing that LCP offenders have a higher probability of IPV in adulthood and that drug and alcohol abuse predicted IPV (Mazerolle & Maahs, 2003; Magdol et al., 1998; see also South et al., 2021). Finally, IPV perpetrators are not a homogeneous group. A review on typologies of IPV perpetrators found three main types: family only, dysphoric/borderline, and generally violent/antisocial. The first two types had low to moderate levels of extrafamilial violence or legal problems, whereas the third type committed moderate to severe levels of marital violence, engaged in higher levels of extrafamilial violence, experienced more legal problems and more psychopathy or antisocial personality disorders (Holtzworth-Munroe & Stuart, 1994; see also González-Álvarez et al., 2022). Therefore, understanding the differences between chronic generally violent offenders and specific IPV offenders is crucial for adapting interventions to their needs and increasing program effectiveness.

This brief report is not without limitations. First, our results are based on cross-sectional data, and they should be confirmed using a longitudinal research design that can capture the type and frequency of offending over multiple time points. Second, the information for some variables was limited. For instance, we did not know the frequency and severity of the violence committed against others, nor did we know the amount of alcohol consumed (only the frequency of consumption), and we had no information about consumption of other types of substances. The use of categorical data interpreted by professionals through semi-structured interviews for some complex constructs such as jealousy and attitudes toward women may have resulted in the loss of relevant information. Future research in non-Western samples including alternative measures is required to confirm our results. Additionally, the measure of recidivism is problematic as it likely underestimates the phenomenon since it relies on IPV that is reported to police, resulting in arrest and conviction and subsequently a referral to the program and thus does not capture the complete population of IPV recidivists in the Dominican Republic. The timing of key life events that can alter offending trajectories, such as marriage, convictions, ailment, and bereavement, were absent from our dataset. Likewise, characteristics of the program (e.g., cognitive distortions, emotional and impulse regulation, parenting skills, empathy, healthy intimate relationship skills) must be measured using validated instruments to better understand the extent to which they reduce recidivism. Such information is necessary to better understand

the profile of chronic IPV offenders and the effectiveness of existing intervention components in order to implement programs better designed to support their desistance.

Appendix

Author Contributions All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by Sanchez de Ribera, Trajtenberg and Vergés. Funding was acquired by Robinson, Sanchez de Ribera, and Trajtenberg. The first draft of the manuscript was written by Sanchez de Ribera and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

Funding This work was supported by Kickstarter Funding provided by the Security, Crime and Intelligence Innovation Institute at Cardiff University.

Declarations

Competing Interests Dr. Luis Vergés is Head of the IPV Programme delivered by the Centre of Behavioral Intervention for Men on behalf of the Attorney General's Office, Dominican Republic. The other authors have no competing interests to declare that are relevant to the content of this article.
The data for this manuscript has not been approved by the study sponsor (Attorney General's Office, Dominican Republic) for depositing in a public repository.

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