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Treatment impact on recidivism of family only vs. generally violent partner violence perpetrators

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Abstract
Background/Objective: The outcome of a treatment program for a large sample of male perpetrators on probation for intimate partner violence (IPV) was evaluated with particular reference to the differential impact on family only (FO) versus generally violent (GV) perpetrators.
Method: Official rates of recidivism for three years post termination of treatment and probation were examined for 456 perpetrators after they were classified as FO and GV.
Results: Both treatment completion and type of perpetrator were predictive of IPV recidivism and time to recidivism. However, analyses conducted separately for the two groups indicated that participation in the intervention predicted both recidivism and time to recidivism for the GV but not FO perpetrators who participated in treatment. Specifically, GV men were responsive to treatment whereas FO men were not. Results were somewhat different depending on who was included in the no treatment comparison group.
Conclusions: Implications of these findings for one size fits all interventions in IPV are discussed with specific reference to the need to develop different interventions for GV and FO perpetrators.
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Impacto de la intervención en reincidencia en agresores solo dentro de la familia vs. agresores violentos en general

Resumen

Antecedentes/Objetivo: El resultado de un programa de intervención para una muestra de agresores masculinos en libertad condicional por violencia contra su pareja intima (VPI) fue evaluado con particular referencia al impacto diferencial en agresores de familia solamente (AF) y agresores generalmente violentos (GV).

Mètodo: Las tasas oficiales de reincidencia durante tres años después de la terminación del tratamiento y de la libertad condicional fueron examinadas en 456 agresores después de ser clasificados como AF y GV.

Resultados: Tanto completar la intervencion como el tipo de agresor fueron predictores de la reincidencia de la VPI y del tiempo para reincidir. Sin embargo, el análisis de los dos grupos por separado mostró que la intervención predijo tanto la reincidencia como el tiempo para reincidir en los agresores GV pero no para los agresores AF que participaron en el tratamiento. Específicamente, los hombres GV fueron receptivos al tratamiento mientras que los hombres AF no lo fueron. Los resultados fueron algo diferentes dependiendo de quién fue incluido en el grupo de contraste.

Conclusiones: Se discuten las implicaciones de estos resultados para intervenciones de una misma talla en VPI con especial atención a la necesidad de desarrollar diferentes intervenciones para los agresores GV y los AF.

Intimate partner violence is a prevalent public health problem in both adults and teens (Hèbert, Blais, & Lavoie, 2017; Heyman et al., 2018), and treatment for perpetrators of intimate partner violence (IPV) has a long history in the United States. However, it was not until 1981 that a systematic treatment approach for perpetrators of IPV was developed by the Duluth Domestic Abuse Intervention Project (DAIP). This psycho-educational treatment focused on challenging perpetrators' beliefs about power, control, and dominance over their spouses (Pence & Paymar, 1993). Since then, many different partner abuse intervention programs following DAIP guidelines have been developed, and perpetrators are generally court mandated to such programs. For example, cognitive behavioral interventions combine the focus on power, control and dominance with cognitive strategies which involve cognitive restructuring, skills training, and sometimes anger management (Dutton & Corvo, 2007). These two treatment approaches share poor outcomes regarding recidivism (Babcock et al., 2016; Babcock, Green, & Robie, 2004). Second, both approaches adopt a similar ''one size fits all'' approach to intervention with perpetrators (Cantos & O'Leary, 2014). All of the perpetrators in most jurisdictions are mandated to a single type of intervention irrespective of their individual characteristics, the type of IPV, and other contextual variables (Cantos & O'Leary, 2014). The current study was designed to enhance our understanding of whether participation in a specific treatment program reduced IPV for all IPV perpetrators or was more effective for some perpetrators than for others.

Various reviews and meta-analyses concur that interventions are at best minimally effective (Arias, Arce, and Vilariño, 2013; Babcock et al., 2004; Eckhardt et al., 2013; Snead, Bennett & Babcock, 2018), and the poorer outcomes are poorer when analyses are based on the most rigorous experimental designs (Babcock et al., 2016). However, a number of the above authors highlighted the evidence that some men responded and some did not, suggesting the need to study moderators of treatment outcome. One recent notable exception to the one size fits all approach is a study by Lila, Gracia, and Catalá-Miñana (2018), in which perpetrators were randomly assigned to receive either a standard perpetrator intervention program or to receive an individualized motivational plan prior to the standard perpetrator intervention program. Results showed that those receiving the individualized motivational intervention stayed in treatment longer, finished the intervention in a more advanced stage of change, reported less physical violence following treatment and had a greater reduction in recidivism risk. Variables identified as important to consider with respect to treatment planning with IPV perpetrators include the presence or absence of substance abuse and mental health problems, personality pathology, type of abuse, frequency and severity of the aggression, the developmental stage of the relationship in which the aggression occurs, stage of motivation for change of the perpetrator, the presence of severe head injury and neuropsychological deficits (Cantos & O'Leary, 2014; Cantos, Goldstein, Brenner, O'Leary, & Verborg, 2015). Research carried out over the past thirty years suggests it is important to take this heterogeneity into consideration when developing interventions designed to reduce recidivism (Cantos & O'Leary, 2014; Gómez, Rodríguez, Muñoz-Rivas, & Montesino, 2017; Holtzworth-Munroe & Meehan, 2004).

And with this heterogeneity in mind, there are a number of approaches to classification that have been developed to potentially aid in the identification of types of partner violent men who may need or profit from different kinds of treatment. Examples of such classifications include Family only v Generally Violent (Shields, McCall, & Hanneke, 1988); Tripartite Typology: Borderline/dysphoric, Generally Violent/antisocial, and Family only (Holtzworth-Munroe & Meehan, 2004); Proactive –Reactive (Chase, O'Leary, & Heyman, 2001). Despite considerable progress in showing differences in the men classified by these means, as noted by Hamberger and Holtzworth-Munroe (2009), ''…despite some promise for the clinical utility of batterer typologies, they have so far had limited clinical application (p. 88).''

Differences between Family Only and Generally Violent men are sometimes referred to as Family Only v Antisocial men (Petersson & Strand, 2017). Using a sample classified as antisocial or general criminality samples, they found that antisocial perpetrators recidivated more than family-only perpetrators (27.2% v 12.9%). In a more recent study, Petersson, Strand and Selenius (2019) found that antisocial perpetrators were significantly younger and more psychologically abusive. They also had significantly higher risk for acute and severe or deadly IPV.

Let us now turn to research that has relevance to the Family Only Aggression type but was in fact a study of differences across groups of men, related to the Tripartite Classification of Holtzworth-Munroe and Meehan (2004). Llor-Esteban, García-Jiménez, Ruiz-Hernández, and Godoy-Fernández (2016) found three profiles of aggressors in Spain according to their risk of recidivism: high-risk aggressors coincide with the Dysphoric/Borderline (DB) type; medium-risk aggressors with the low-level antisocial type (LLA); and the low-risk group with the type of aggression labeled family only (FO). Of significance, not a single man in the FO type group had any personality diagnosis. Moreover, compared to the other two groups, the low risk (FO) men had much less involvement with the penal system and significantly less likely to have scores in the clinical range on depression and hostility. Similarly, López-Ossorio, González Álvarez, Buquerín Pascual, García, and Buela-Casal (2017) found that the more antisocial aspect of the aggressors were strongly associated with repeated violence and non-compliance towards formal measures of social control, like breaking judicial measures. Thus, this research like others documents that there are very important differences in the types of men mandated to programs for partner aggressive men, and that the FO men have the least pathological backgrounds.

When it comes to treatment, several studies have focused on the FO versus antisocial and GV distinction with respect to treatment completion and response (Cantos et al., 2015; Petersson & Strand, 2018; Stoops, Bennett, & Vincent, 2010). Stoops et al. (2010) provided some of the first direct evidence that a behavior-based typology can predict both treatment program completion and re-arrest in an urban criminal justice system in Cook County, Illinois. In this study, the authors compared treatment success for three types of DV perpetrators: those characterized by (1) low-level criminality, (2) dysphoria and volatile behavior, and (3) dysphoria and general violence. The distressed GV men were less likely to complete treatment and more likely to recidivate, although the recidivism finding was weak. Cantos et al. (2015) also found that in a sample of men placed on probation for IPV perpetration, GV men were less likely to complete treatment than FO men. Moreover, within a subset of this same sample, the severity of the violent episode was predictive of recidivism for the GV men but not for the FO men (Goldstein, Cantos, Brenner, Verborg, & Kosson, 2016). Petersson and Strand (2018) provide an excellent review on the empirically identified characteristics of the FO group. The purpose of this study was to further investigate whether the GV men differ from the FO violent men with respect to response to a court mandated intervention. Given the documented differences between FO and GV perpetrators, it is plausible that these different types of perpetrators respond differently to the one size fits all interventions, especially given the evidence that GV perpetrators are less likely than FO perpetrators to complete treatment. This study also attempts to address the issue of who to include in the comparison group when considering treatment effectiveness. Because of the need to assign IPV perpetrators to treatment and difficulties with random assignment to treatment completion, most studies have compared successful treatment completers to non-completers. However, this practice excludes perpetrators who received some treatment from the treatment completion group and subsequently inflates estimates of treatment effectiveness (Gupta, 2011). Because those who begin but do not complete treatment are treatment failures, it is misleading to exclude such people from the treatment group. In this paper, we thus present two sets of analyses to illustrate the impact of comparing everyone who begins treatment with those who do not even attend one session versus comparing only those who successfully complete treatment to everybody else.

This partner aggression treatment evaluation, as all such treatment evaluations, took place in a legal/psychological context in which many factors are not fully controlled such as the ability of a man to have contact with a partner or former partner, actions by a probation officer against an offender, or placement of a batterer in jail. Yet within this context, there is a desire to know who improves with treatment and who does not, and whether FO v GV men respond differently to treatment. If there are such differences obtained, they operate over and above many of the naturally occurring aforementioned variables.

Method

Participants

The sample consisted of 456 men placed on probation in Lake County, IL over a three-year period (2006, 2007, and 2008) following an arrest for intimate partner violence. The men were between the ages of 17 and 72 ($M = 33.94$, $SD = 10.47$). The age men were first arrested ranged from 9 to 63 ($M = 20.16$, $SD = 8.46$). Reported annual income ranged from \$0 to \$150,000 ($M = \$20,214$, $SD = \$24,922$). The number of current offenses ranged from 0 to 7 ($M = .30$, $SD = .68$). The number of reported prior orders of protections ranged from 0 to 6 ($M = .75$, $SD = .91$), and the number of prior adult convictions ranged from 0 to 22 ($M = 4.17$, $SD = 4.14$).

Table 1 Individual characteristics as a percentage of perpetrator type.

Characteristics	Family Only (n = 269)	Generally Violent (n = 187)
Education		
Post high school	28.8	11.6
Employment		
Employed	64.0	43.3
Marital Status		
Married	38.7	21.3
Ethnicity		
Caucasian	51.3	33.2
African American	23.8	51.3
Latino	23.4	15.0
Other	1.5	< 1.0
PAIP Program		
Completed treatment	65.5	36.3
3-year follow-up		
IPV recidivism	16.6	37.4

Note. The *n* values for characteristics within FO perpetrators are smaller for educational attainment (*n* = 257), employment (*n* = 258), marital status (*n* = 266), PAIP program completion (*n* = 238), and IPV recidivism (*n* = 242). The *n* values for characteristics within GV perpetrators are smaller for educational attainment (*n* = 181), employment (*n* = 180), marital status (*n* = 183), PAIP program completion (*n* = 168), and IPV recidivism (*n* = 168). PAIP = Partner Abuse Intervention Program. 3-year follow-up = the period of time following post-probation completion/termination.

Information was available regarding the relationship with the victim for 357 of the men. The largest percentage, 42% (*n* = 146), had aggressed against a girlfriend, 34% (*n* = 118) against a wife, and 24% (*n* = 83) against an ex-girlfriend or ex-wife. Thirty-four (*n* = 118) percent of the men reported themselves as single, 25% (*n* = 89) as having a girlfriend, 32% (*n* = 111) as married, and 8% (*n* = 28) as divorced. The majority, 57% (*n* = 203), were in a relationship. With respect to living arrangements prior to arrest, 31% (*n* = 133) described themselves as living with their significant other or spouse, 37% (*n* = 169) as separated, and 28% (*n* = 128) as having no contact. Information on ethnicity and employment is included in Table 1..

As discussed below, participants were classified as FO violent or GV. In this sample, 269 participants were FO and 187 were GV. Treatment participation data were available for 385 participants, but information about the number of days in jail was available for only 369 participants. Consequently, 385 participants were included in logistic regressions, and 369 participants were included in Cox regressions.

Type of perpetrator

Men were classified as either FO or GV based on their prior history of violence, documented by Law Enforcement Agencies Data System (LEADS). LEADS provides comprehensive summaries of criminal history data at the national level. In addition to the current convicted offense, which required at minimum an official charge of a domestic violence offense, individuals whose criminal histories documented an arrest for at least one aggressive act towards an individual other than a current/former partner or family member were classified as GV. Such acts included simply battery, aggravated assault, armed robbery, and disorderly conduct. Resisting arrest did not qualify as an aggressive act as defined above. In cases that were difficult to classify based solely on criminal histories, information regarding conduct problems in youth, including evidence of fights in school or gang activity was used to classify men with a history of conduct disorder and aggression problems in childhood as GV. Men were classified as FO if records indicated no history of violent behavior except for domestic violence offenses.

Two graduate level psychology students were trained in the operationalization of the two types, and they coded groups of 30 cases until sufficient interrater reliability was established (kappa > .80). Following the attainment of acceptable reliability, all cases were coded. For every 100 cases in the sample, 20 cases were coded by both raters blind to each other's rating to ensure that there was no interobserver drift. Kappa coefficients for each 100 cases in the sample were as follows: First set: .79; Second set: .90; Third set: .61; Fourth set: 1.0 (Cantos et al., 2015).

Probation Pre-Screen Intake

The Probation Pre-Screen Intake was completed by probation officers as part of each probationer's intake and included age, ethnic status, marital status, level of education, and employment status. The LEADS criminal history data for offenses prior to the probation start date for each probationer were also documented.

Treatment participation and treatment completion

Court-mandated domestic violence treatment data were assessed by information derived from treatment and probation notes in each man's file. As noted above, principal analyses examined the impact of treatment participation on recidivism. Additional supplementary analyses examined the impact of treatment completion on recidivism. All men who began treatment and completed it and all men who began treatment but did not complete it (for any reason) were considered to have participated in treatment. Only men who completed treatment successfully were considered to have completed treatment. (Note: Illinois mandates a minimum of 24 weeks of treatment).

Recidivism

Recidivism was measured by official reports of domestic violence arrest via LEADS, which provides official criminal histories at the national level. Any incident that occurred after the individual's probation period ended and was identified as a domestic violence related arrest (domestic battery, battery, violation of order of protection, phone harassment) against a former or current intimate partner was classified as domestic violence recidivism. Official reports of re-arrest

were reviewed and collected by a Masters level research analyst employed by the Circuit Court of Lake County, Illinois.

Follow-up period

Recidivism data were obtained for three-years post probation completion/termination for each perpetrator. The current study utilized the last date monitored by probation (either completion or unsuccessful termination) as the outset of follow-up for recidivism analyses.

Procedure

The study consists of an examination of records for men who were placed on probation and mandated to attend treatment following arrest involving a charge of domestic violence over a three-year period (2006-2008) in Lake County, Illinois. This study was reviewed by the Institutional Review Board established by Rosalind Franklin University of Medicine and Science and was granted Exempt status given that it was based on an examination of existing records. Records of all men placed on probation over a three-year period were thoroughly reviewed for pre-intervention and post-intervention information. A coding system was used to categorize the men as either FO or GV. This system was previously described in Cantos et al. (2015) and use of similar operationalized coding systems has been shown to lead to improved classification accuracy in intimate partner violence (Heyman et al., 2018). Information was collected as to whether perpetrators completed the court mandated intervention or not. The perpetrators were then followed for three years post termination of probation to determine recidivism rates. We first examined the overall impact of treatment participation (using modified intention-to-treat analyses) and type of perpetrator (GV vs. FO) on recidivism in general. Because it was of interest whether the impact of treatment could be detected in each perpetrator group, we then examined the impact of treatment participation on recidivism rates within each type of perpetrator separately. Finally, we conducted supplementary analyses examining the separate and interactive impacts of treatment completion and perpetrator type.

Data analyses

Principal analyses were modified intention-to-treat (ITT) analyses, which included all men who began treatment. In such analyses, men who began treatment but did not complete it (for any reason) are included as participating in treatment (The extent to which they varied in their treatment participation is not examined in these analyses) so that it is possible to evaluate the impact of the court-mandated assignment to treatment (Gupta, 2011). We note that such analyses are slightly less conservative than a true ITT analysis which includes even people who *never* attend any treatment sessions. However, given that treatment was required by a court to avoid incarceration, it appears misleading to describe men who did not attend even one session as having an ''intention to be treated.'' Nevertheless, both ITT and modified-ITT analyses are more conservative than analyses limited to those who complete treatment and are often recommended by research organizations that fund research comparisons (e.g., Center for Drug Evaluation and Research, Food and Drug Administration, Department of Health and Human Services, 1988).

Supplementary analyses examined the effectiveness of treatment using the per-protocol (PP) approach which included only individuals who complete treatment successfully. In PP analyses, those who did not start treatment and those who started but did not complete treatment were categorized as not completing treatment, and were compared with individuals who completed treatment successfully.

Of the 410 men for whom recidivism data were coded and for whom there were data on whether or not they were incarcerated, 25% ($n = 101$) were arrested for IPV offenses during the post probation follow-up.

Principal analyses were Cox regressions which addressed whether treatment participation and perpetrator type predicted the length of time to recidivate over the three-year follow-up period and logistic regressions addressing whether treatment participation and perpetrator type impacted whether someone recidivated measured dichotomously. In Cox regressions, the time perpetrators spent incarcerated as a result of convictions for non-IPV offenses (e.g., drug conviction, theft) was subtracted from their total at-risk period as long as it a) preceded the first domestic violence re-arrest, or b) occurred prior to 1,095 days (three years) post probation termination (end of follow-up period) for those who were not rearrested for a domestic violence offense. The time variable measured the number of days from probation end date until re-arrest for a domestic violence charge, or up to 1,095 days for those who did not reoffend. This approach is consistent with that implemented by Goldstein et al. (2016) and allows for time to re-offense to be considered equally across individuals in the sample.

Results

Preliminary analyses

Zero-order correlations were examined to examine the possibility of including demographic variables as covariates. A correlation matrix revealed that participant age was associated with recidivism, $r = -.18$, $p < .001$. In addition, marital status was correlated with recidivism, $r = -.10$, $p = .038$. Consequently, scores on these variables were retained as covariates in survival analyses.

GV perpetrators (36%) were significantly less likely to complete treatment than FO perpetrators (65.5%). Generally Violent perpetrators (44.9%) were also more likely to be incarcerated during their probation term than FO perpetrators (11.2%), $\chi^2 (2, 372) = 54.76$, $p < .0001$. Finally, those perpetrators that were incarcerated (45.6%) were also more likely to recidivate in the three years post termination of probation than those that were not (18%). $\chi^2 (2, 372) = 28.11$, $p < .0001$.

Table 2 Correlations among key study variables.

	Recidivism	Treatment	Age	Marital status	IPV Subgroup	Survival
Recidivism	1	-.181[**]	-.100[*]	-.222[**]	-.236[**]	-.781[**]
Treatment		1	.259[**]	.216[**]	.298[**]	.290[**]
Age			1	.315[**]	.155[**]	.210[**]
Marital status				1	.184[**]	.152[**]
IPV subgroup					1	.233[**]
Survival						1

Note. Recidivism = any IPV recidivism within the 3-year post-probation follow-up. Treatment = treatment completion status. Age = age of probationer. Survival = post-probation survival period. For Treatment, 0 = IPV treatment not completed. For Marital status, 0 = not married. For IPV subgroup, 0 = Generally Violent.

[*] p < .05
[**] p < .01

Primary analyses

Analyses of perpetrator yype and treatment participation: Full sample

The percentage of GV perpetrators who recidivated in the three years post probation was 37.4%; in contrast, only 16.6% of the FO perpetrators recidivated during this interval (see Table 1). Logistic regressions predicting the presence of IPV recidivism yielded a significant protective effect of current age, Wald χ^2 (1) = 12.76, Exp (B) = 0.95, p < .001. When treatment participation was added in the second step, it too predicted recidivism, Wald χ^2 (1) = 6.11, Exp (B) = 0.53, p = .013, indicating that participating in the treatment group was predictive of a lower likelihood of IPV recidivism. Perpetrator type (Family Only vs. Generally Violent) also contributed uniquely to the prediction of recidivism in the third step, Wald χ^2 (1) = 8.34, Exp (B) = 0.48, p = .004. Age continued to predict, χ^2 (1) = 8.45, Exp (B) = 0.96, p = .004, but treatment participation was no longer predictive of recidivism with perpetrator type in the model, χ^2 (1) = 2.8, Exp (B) = 0.64, p = .092. Table 2

For those that recidivated for IPV offenses in the post probation follow-up period, time until recidivism ranged from 9 to 1,095 days (M = 398, SD = 322). Like the logistic regressions, Cox regressions predicting time to IPV recidivism also demonstrated an age effect, Wald χ^2 (1) = 12.47, Exp (B) = 0.95, p < .001. Treatment participation again predicted a lower likelihood of IPV recidivism when it was added in the second step, Wald χ^2(1) = 8.45, Exp(B) = .53, p = .004. Finally, perpetrator type also contributed uniquely to the prediction of recidivism in the third step, Wald χ^2 (1) = 8.14, Exp (B) = 0.54, p = .004. In this analysis, both completion of treatment and age remained significant unique predictors of time to recidivism with perpetrator type in the model (see Table 3), indicating that these predictors contributed independently to the prediction of time to recidivism. Finally, the Treatment Completion X Type of Perpetrator interaction did not approach significance, Wald χ^2 (1) < 1.00, Exp (B) = 1.40, p = .438.

Analyses of treatment participation within perpetrator groups

Because statistical tests of interactions are often underpowered, and because it had been predicted that treatment completion would be more important for the GV than for the FO perpetrators, we repeated these analyses separately for subgroups of GV and FO perpetrators. Within the group of GV offenders (N = 157, the logistic regression again demonstrated effects for age in the first step, Wald χ^2 (1) = 7.00, Exp (B) = 0.94, p = .008, and treatment participation in the second step, Wald χ^2 (1) = 3.97, Exp (B) = 0.47, p = .046. The Cox regression again demonstrated significant effects of age (Step 1), Wald χ^2 (1) = 7.42, Exp (B) = 0.95, p = .006, and treatment completion (Step 2), Wald χ^2 (1) = 6.60, Exp (B) = 0.45, p = .01.

In contrast, treatment participation did not predict IPV recidivism among the FO men (N = 228). The logistic regression demonstrated only marginally significant protective effects of both age, Wald χ^2 (1) = 4.37, Exp (B) = 0.96, p = .037, and marital status, Wald χ^2(1) = 3.86, Exp (B) = 0.42, p = .049. However, in this group, there was no effect of treatment completion, Wald χ^2 (1) = 0.33, Exp (B) = 0.79, p = .566. Results were similar for the Cox regression, but, among the FO offenders, the effects of both age and marital status were only marginally significant, Wald χ^2s (1) = 3.83, 3.66, respectively, Exp (B)s = 0.96, 2.19, ps = .050, .056. As for the logistic regression, there was no effect of treatment participation in the Cox regression for FO offenders, Wald χ^2 (1) = 0.30, Exp (B) = 0.82, p = .587.

We conducted a parallel set of logistic and Cox regressions to examine whether perpetrator type and treatment completion was similarly predictive of those who attritted during treatment were not included in the treatment group, and the results were similar to those summarized above for the modified ITT analyses. A logistic regression indicated significant effects for age (Step 1), Wald χ^2 (1) = 13.52, Exp (B) = 0.95, p < .001, treatment completion (Step 2), Wald χ^2 (1) = 9.90, Exp (B) = 0.44, p = .002, and for type of perpetrator (Step 3), Wald χ^2 (1) = 9.31, Exp(B) = 0.45, p = .002. In this analysis, the impact of treatment completion remained significant with perpetrator type in the model, Wald χ^2 (1) = 5.34, Exp (B) = 0.54, p = .021.

The Cox regression also revealed significant effects for age (Step 1), Wald χ^2 (1) = 12.94, Exp (B) = 0.95, p < .001, for treatment completion, Wald χ^2 (1) = 11.93, Exp (B) = 0.46, p = .001, and for perpetrator type with respect to time to IPV recidivism, Wald χ^2 (1) = 8.44, Exp (B) = 0.52, p = .004. As in analyses of treatment participation, age and treatment completion remained significant predictors of recidivism with perpetrator type in the model, and, as in prior

Table 3 Predicting the Hazard of IPV recidivism based on age, marital status, treatment completion, and perpetrator type ($N = 369$).

Variable	Model 1			Model 2			Model 3			Model 4		
	β	SE	Wald χ2	β	SE	Wald χ2	β	SE	Wald χ2	β	SE	Wald χ2
Age	-.04	.01	12.47***	-.04	.01	9.11**	-.04	.01	8.39**	-.04	.01	8.43*
Marital status	.28	.26	1.11	.15	.27	.30	.05	.27	.04	.05	.27	.04
Treatment comp.				-.62	.21	8.45**	-.49	.22	4.94*	-.97	.66	2.16
Perpetrator type							-.62	.22	8.14**	-1.14	.71	2.55
Treatment comp.X Perpetrator type										.34	.44	.60
χ2	18.47	28.5610.09**	37.248.68**	37.86.62								
χ2 change												

Note: treatment comp = treatment completion. For Marital Status, 0 = married. For Perpetrator type, 0 = Generally Violent. For treatment completion, 0 = did not complete.

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

analyses, the Group X Treatment completion interaction was not significant, Wald χ^2 (1) = 0.43, Exp (B) = 0.74, p = .512.

Discussion

Treatment was predictive of recidivism when looking at the sample as a whole. Those who attended at least one session of the treatment were characterized by a lower likelihood of IPV recidivism over the three-year follow-up period. The effect size was 0.54 suggesting that the odds of IPV recidivism for those who participate in treatment are just over half of what they are for those who do not participate. It is noteworthy that this effect of treatment was evident after controlling for age, which was also a predictor of IPV recidivism but not after controlling for perpetrator type. In addition, treatment participation was predictive of time to recidivism as indicated by a significant Cox Regression, with those perpetrators that participated in treatment recidivating later than those who did not.

However, when the sample was divided into subgroups of IPV offenders who were Generally Violent versus IPV offenders who were Family Only Violent, then attendance at treatment was not a significant predictor of either recidivism or time to recidivism among FO men. In summary, treatment participation did not reduce the likelihood of recidivism for FO perpetrators nor did it did delay recidivism for those who recidivated. Age remained a significant predictor in all analyses, including this one. However, marital status was also a significant predictor of recidivism for FO perpetrators: non-married FO violent perpetrators were significantly more likely to recidivate than married FO offenders. In contrast, among the GV perpetrators, as predicted, treatment attendance was predictive of both recidivism and time to recidivism.

In short, these results suggest that treatment is of less value for FO violent offenders than for GV offenders. Because all men in this sample were mandated to treatment, there is not a no-treatment or no-intervention comparison which would be difficult ethically and methodologically. Also, it is important to know that the recidivism rate for the FO men was 16.6% whereas the recidivism rate for the GV men was 37.4%. However, participation in treatment did not predict recidivism for the FO men. Perhaps simply being assigned to treatment and having a probation officer check on these men periodically led to their not recidivating very often. Alternatively, it could be argued that the FO violent men do not need any formal intervention as they may not want to risk re-offending because they are more likely married and employed, and they do not want to risk losing either their marriage or their job and represent a lower risk group as suggested by previous research (Grana, Redondo, Muñoz-Rivas, Cantos, 2014; Llor-Esteban et al., 2016; Petersson et al., 2019; López-Ossorio et al., 2017).

These results also suggest the possibility that treatment may work differently for GV IPV offenders than for FO IPV offenders. Among GV offenders, treatment attendance was associated with a reduced risk of IPV recidivism. The treatment effect (with Exp (B)'s approximating 0.50 suggest that GV IPV offenders who attended treatment were characterized by a reduction in risk of IPV recidivism

of about 50%. In fact, the liberal definition of treatment participation employed for this study suggests that even attending small numbers of treatment sessions may have been helpful to GV men.

The above findings provide evidence consistent with the distinctions among IPV perpetrators and with suggestions that some conventional treatments may be more effective for some kinds of IPV offender clients than for other kinds of IPV offenders. Such findings provide preliminary evidence consistent with the perspective that underscores the importance of matching treatment type to perpetrator characteristics and provide further evidence that mandating all perpetrators to attend the same one size fits all intervention is ill advised.

In addition, the results presented in this paper highlight the importance of who is included in the comparison group in treatment outcome research. When treatment completers were compared to non-completers and the non-completers group included anybody who did not complete the treatment irrespective of whether they had attended some sessions or not, treatment completion significantly predicted recidivism. However, when those that had received some dose of treatment - irrespective of whether they had completed treatment or not - were included in the treatment group then the significant results for treatment disappeared once perpetrator type was included in the model. These findings suggest that the impact of participation in treatment on recidivism shares substantial variance with type of perpetrator. The practice of comparing treatment completers with those that do not complete treatment even though they attended some treatment actually includes treatment failures in the comparison group and artificially inflates treatment effects.

Limitations

This study is not without limitations. First, there was likely significant variability in the length and status of intimate partner relationships during the three-year post-probation period in which recidivism was assessed. Thus, some men may have had a greater opportunity to recidivate for IPV relative to others. Legal restrictions precluded the research team from contacting victims to obtain victim-reported accounts of IPV which would have allowed for comparison of these rates to LEADS recidivism rates. Additionally, results related to recidivism may not be generalizable to IPV perpetrators who have not been sentenced to probation and who have potentially less extensive criminal histories. However, research has shown that general aggressiveness and antisocial tendencies are significant predictors of continued IPV (Holtzworth-Munroe & Meehan, 2004; López-Ossorio et al., 2017), and thus, one might expect similar results with qualitatively different samples. Future studies might consider examining the differential impact of treatment on IPV recidivism for individuals classified as family only violent versus generally violent who are not sentenced to probation. It is also possible that any effects of perpetrator subtype could reflect unmeasured personological factors that correlate with subtype membership.

Conclusion

Both prior analyses and current findings argue against the existing practice in the area of intimate partner violence of mandating perpetrators of IPV to one size fits all interventions and suggest that it may be time to begin applying the results of research studies to the policies of treatment agencies and courts in an effort to match interventions more carefully to the type of perpetrator (Snead et al., 2018). It is important to study characteristics of existing interventions that are helping GV perpetrators and identify interventions that could help FO perpetrators.

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