

## Assessment of a community rehabilitation programme in convicted male intimate-partner violence offenders<sup>1</sup>

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**ABSTRACT.** In Spain, the mandatory community rehabilitation of convicted male intimate-partner violence offenders opens new avenues for the treatment of these offenders. To determine the effectiveness of an experimental cognitive-behavioral treatment programme with content adjusted to target the specific cognitive limitations or deficits of each individual intimate-partner violence offender, a field study was designed to assess the rehabilitation effects on the underlying internal mechanisms that foster offending. 130 convicted intimate-partner violence offenders underwent pre- and post-intervention assessment of the internal underlying mechanisms that spur offending. The pre-rehabilitation results showed that convicted intimate-partner violence offenders exhibited, in comparison with the normative population, hostility (*i.e.*, aggression, anger, fury, irritability, rage, resentment), persecutory ideas (*i.e.*, suspicious, fear of losing autonomy, need of control, difficulties in expressing their hostility), and depressive symptoms. The rehabilitation effects were significant, positive and with a moderate effect size for depressive symptoms, large for hostility, and moderate for persecutory ideas. In conclusion, the results substantiate the effectiveness of this rehabilitation program for the treatment of violent thinking.

**KEYWORDS.** Community treatment. Intimate-partner violence. Convicted. Batterer. Quasi-experimental study.

<sup>1</sup> This research has been sponsored by a grant of the Spanish Ministry of Science and Innovation (EDU2011-24561).

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**RESUMEN.** En España, la introducción por ley del tratamiento en la comunidad de la mayoría de los condenados por delitos de violencia de género ha planteado un nuevo escenario de investigación para afrontar esta demanda. A fin de conocer la eficacia de un programa cognitivo-conductual de tratamiento cuyas características específicas eran el control de la adherencia/progreso en el tratamiento y el ajuste de los contenidos a las necesidades de los penados, se diseñó un estudio de campo con el objetivo de conocer los efectos del programa en los mecanismos internos subyacentes al comportamiento criminal. Para ello fueron evaluados en éstos los 130 primeros penados que cumplieron el programa. Los resultados de la evaluación pre-intervención de los penados mostraron que exhibían hostilidad (*v.gr.*, agresividad, ira, rabia, irritabilidad, cólera, resentimiento), ideas persecutorias (susplicia, miedo a la pérdida de autonomía, necesidad de control, dificultades en la expresión de la hostilidad) y sintomatología depresiva. Los efectos del tratamiento fueron significativos, positivos y de un tamaño del efecto moderado en la sintomatología depresiva, grande en hostilidad y moderado en las ideas persecutorias. En conclusión, los resultados avalan la efectividad de este programa en el tratamiento del pensamiento violento.

**PALABRAS CLAVE.** Tratamiento en la comunidad. Violencia de género. Condenado. Maltratador. Estudio cuasi-experimental.

In 1974, the sociologist Robert Martinson, following a meta-analysis of offender rehabilitation programmes (*e.g.*, intensive supervision, psychotherapy, group therapy, vocational training, correctional education, medical assistance), expounded the doctrine that nothing works in the rehabilitation of delinquents. The doctrine debunked the underlying assumptions of offender rehabilitation programmes and, in particular, rebuked exclusively therapeutic, educational, and intensive supervision programmes as inefficacious. Forty years on, the landscape of rehabilitation is radically different *i.e.*, the results of recent meta-analyses have revealed a significant effect both in terms of rehabilitation and crime prevention (Chereji, Pintea, and David, 2012; Lipsey and Wilson, 1998; Redondo, Sánchez-Meca, and Garrido, 2002). These meta-analyses have also reported the incidence of several variables moderating this effect. Psychological rehabilitation (behavioural, cognitive, and cognitive-behavioural) were deemed to be the most effective with a fall in the rates of recidivism and a rise in crime prevention; thus, the cognitive-behavioural programmes were considered the most efficacious (*e.g.*, Lipsey and Wilson, 1998; Redondo *et al.*, 2002).

Another moderating variable of relevance is the contrast measure of the efficacy of rehabilitation. In spite of the numerous and diverse types of operative assessment for the broad spectrum of offender rehabilitation programmes, there are two main subtypes of measurements: measures of overall recidivism, and measures of specific rehabilitation targets, in particular the variables of cognitive competence. The assessment of recidivism is a complex and controversial enterprise for a number of reasons. First, there is no agreement in how to estimate recidivism. Thus, recidivism has been measured in terms of arrests warrants (police recidivism), court cases (judicial recidivism), in sentencing (prison recidivism), the offender's self-report, and external reports (*e.g.*, victim, partner,

family, social services). The lack of consistent statistics on recidivism becomes apparent from the data on gender violence *e.g.*, the Spanish Observatory on Gender Violence of the General Council of the Judicial Power (Europa Press, 2010) reported that from July 2005 to the end of 2008 a total of 140,705 court cases resulted in 95,284 convictions for intimate-partner violence *i.e.*, the discrepancy between trial and conviction was around 30%. The rate would be even higher if the total number of formal complaints of intimate-partner violence (600,141) were computed. Moreover, registries on recidivism are hardly exhaustive, not to say inexistent, and could even be illegal according to current Spanish legislation *e.g.*, Spanish Data Protection Act [Ley Orgánica 15/1999]. The results of the meta-analysis of Chereji *et al.* (2012) highlight that delinquent self-reports may vary considerably from those obtained using behavioural registries. Second, though a two-year re-offender follow-up period has been proposed as an evaluation criterion (Tournier and Barre, 1990), there is no scientific evidence substantiating this criterion, nor any agreement among the scientific community, particularly since approximately 1/3 of recidivism occurs in the third year. Moreover, in the absence of any legal guidelines, mandatory follow-up may range from two to five years; hence, the results should be interpreted with caution. The second type of measure involves the assessment of specific rehabilitation targets, in particular the variables of cognitive competence. Though the general aim of rehabilitation is to prevent reoffending, efficacious intervention models *i.e.*, cognitive-behavioural, are driven to develop cognitive competence (*e.g.*, cognitive skills, anger management, problem-solving skills) given that delinquent behaviour and, in turn, recidivism are the product of poor cognitive competence. Thus, treatment focuses on achieving specific aims *i.e.*, to develop the offender's cognitive skills and competence, in order to attain the primary objective, preventing relapse. Hence, offender rehabilitation should be evaluated ultimately in terms of the general aim (recidivism) as well as the assessment of specific aims (developing cognitive competence). Theoretically, in contrast to the incompetence associated to delinquency, cognitive competence is defined as the effectiveness in drawing upon personal and environmental resources to achieve adequate psychosocial development (Waters and Sroufe, 1983). Notwithstanding, neither rehabilitation programmes share the same content nor do authors agree on taxonomies of cognitive competence. These discrepancies, however, should not be understood as an inherent limitation, but rather arise from the need to adapt rehabilitation programmes to the typology of criminal behaviour, and the needs and deficits of the individual offender. Accordingly, the Spanish Prison Regulations state that penal institutions «will employ psychosocial programmes and techniques designed to develop the offender's skills and abilities as well as addressing specific problems that may have influenced previous criminal behaviour» (Art. 110 Real Decreto 190/1996 [Royal Decree 190/1996 of the Spanish Prison Regulations], *de 9 de febrero, por el que se aprueba el Reglamento Penitenciario*). That is, the target of rehabilitation is not criminal behaviour itself, but rather the psychosocial variables that moderate this behaviour (*e.g.*, skills, abilities). The cluster of variables related to violent behaviour encompass what has been termed, inside the criminal context, as risk/protective factors, which were the specific objectives of the rehabilitation programme that seek to achieve the general objective of preventing recidivism. From a cognitive therapeutic perspective, the focus of the intervention is

driven by primary thinking (Beck, 1999) that stems from cognitive distortions, a term used to refer to the attitudes and beliefs which offenders rely on to deny, minimize, rationalize and justify their behaviour. In other words, these cognitive distortions are post-hoc self-serving biases. Moreover, there is no evidence that these distortions forerun offending (Maruna and Mann, 2006). Furthermore, research on the effects of treatment on cognitive disorder is invalid for forensic settings for failing to suspect and thus detect the malingered treatment progress, as should be suspected in the forensic assessment of the criminal context (American Psychiatric Association, 2000). Thus, if treatment is driven to mitigate or control post-hoc attitudes, beliefs or rationalizations that support offending, and there is no evidence that these precede offending, then the goal of the intervention will be inadequate. Consequently, bearing in mind that violent behaviour requires cognitive support, we proposed to reformulate *post-hoc* cognitive distortions as *a priori* ones and those associated to persistence in offending that were termed, to avoid confusion, the «underlying internal mechanisms» that forerun violence, and in particular, intimate-partner violence offenders (IPVOs): anger/hostility and persecutory ideas, both related to women, feelings of inadequacy and inferiority, and psychological distress (*e.g.*, Arce and Fariña, 2010; Loinaz, Ortiz-Tallo, Sánchez, and Ferragut, 2011; Norlander and Eckhardt, 2005), which additionally were linked to persistent offending (*e.g.*, Maruna, 2004). Hence, treatment that simultaneously promotes coping skills and abilities, and has an incidence on the underlying internal mechanisms of IPVOs should be effective in controlling the persistence of IPV.

In Spain, the introduction of the Spanish Law on Intimate-Partner Violence (Ley Orgánica 1/2004 [Spanish Law of Gender Violence], *de 28 de diciembre, de Medidas de Protección Integral contra la Violencia de Género*) contemplated a new scenario where first-time convicted IPVOs serving sentences under two years could have incarceration replaced by mandatory community orders. Though community rehabilitation programmes are more effective than closed prison interventions (among other reasons, these offenders have qualitatively different needs *i.e.*, offenders serving their prison terms in the community are usually less violent first-time offenders) (*e.g.*, Redondo *et al.*, 2002), there are no systematic reports of IPVO rehabilitation contrasted under these circumstances (Feder and Wilson, 2005). In Spain, IPVO programmes were limited to voluntary offender rehabilitation programmes (*e.g.*, Echeburúa, Corral, Fernández-Montalvo, and Amor, 2004), most of which had positive effect sizes (Babcok, Green, and Rubie, 2004; Feder and Wilson, 2005). Nevertheless, as offender rehabilitation is voluntary, these results cannot be extrapolated to the rehabilitation of other types of offenders and under other conditions of implementation (McGuire, 2008). Under these circumstances, in July 2005 the Galician Re-education Programme for Male Intimate-Partner Violence Offenders (Arce and Fariña, 2010), involving mandatory community supervision orders, was established. Thus, a quasi-experimental field study was designed to assess the effectiveness of the Galician Re-education Programme for Male Intimate-Partner Violence Offenders in the underlying internal mechanisms that potentially forerun IPV and the persistence on this behaviour.

## Method

### *Participants*

The participants were the first 130 males (mean age = 40.64 year,  $SEM = 1.02$ ) convicted (mean length sentence = 1.3 years,  $SEM = 0.05$ ) convicted for physical and/or psychological intimate-partner violence who had completed the mandatory community re-education programme for intimate-partner violence in Galicia (north-western Spain), and had been qualified by the rehabilitation team as having completed the programme in the offender's final report.

### *Procedure and design*

The data were obtained on a one-to-one basis with each individual offender being assigned a trained personal psychologist who was responsible for treatment, and reading aloud each item on the checklist and endorsing the response on the answer sheet. In addition, the offender was provided a notebook with a copy of the questions and response. Once each instrument had been completed, the offender signed the response sheet as an acknowledgement of acceptance. The procedure was designed to obtain the offender's immediate response in order to limit cognitive strategies for biasing responses. A field-study research method was adopted involving a quasi-experimental design (Montero and León, 2007) of pre-tests and post-tests measures. The rehabilitation programme was adjusted to the individual needs and deficits of each offender (see in Arce and Fariña, 2010 the procedure). None of the participant had neurological disorders or mental impairments that would disqualify them from a standard offender rehabilitation programme. Individuals with incapacitating psychiatric disorders and addictions were moved on to a specialized centre for the treatment of psychopathological disorders and illicit substance abuse. Once patients had been classified as stable by the specialized centre; they were included in the rehabilitation programme.

To contrast the sensitivity of the design for a sample size of 130 offenders, the probability of detecting  $(1-\beta)$  significant differences ( $\alpha < .05$ ) for a medium effect size ( $f = 0.25$ ) was 100% [the results of the meta-analyses revealed the large effect size on cognitive distortions (Chereji *et al.*, 2012); medium size on recidivism for all types of offenders (Redondo *et al.*, 2002); small size on recidivism for male intimate-partner violence (Babcock *et al.*, 2004; Feder and Wilson, 2005); and a large effect size,  $d = 1.24$ , in the only study, to our knowledge, that assessed the effects of mandatory rehabilitation on the cognitive distortions of IPVOs (Hornsvelt, Bezuijen, Leenars, and Kraaimaat, 2008)] a repeated measures MANOVA comparing two groups (pre-rehabilitation vs. post-rehabilitation assessment) for 9 variables was undertaken with a .23 correlation among repeated measures.

### *Instruments and variables*

The assessment of the underlying internal mechanisms was undertaken using the *SCL-90-R* (Derogatis, 1977) that measures nine dimensions (*i.e.*, *Somatisation*, *Obsessive-Compulsive*, *Interpersonal sensitivity*, *Depression*, *Anxiety*, *Hostility*, *Phobic anxiety*, *Paranoid ideation*, and *Psychoticism*), and three global indices of distress (*i.e.*, the

Global Severity Index, the Positive Symptom Total, and the Positive Symptom Distress Index). Moreover, these global indexes can be used to control response distortions. The scale showed good psychometric properties (Derogatis, 1977, 2002). As for the current study the internal consistency of the whole scale was  $\alpha$  .81, ranging for the dimensions from .77 (*Paranoid ideation*) to .86 (*Psychoticism*).

Control of distortions in the responses. Standard clinical assessment, based on DSM-IV criteria, is non-operative to control the validity of responses since clinical judgments made on these criteria result in a misclassification rate over 80% (Rogers and Vitacco, 2002). Hence, the protocols validated by Arce and Fariña (*e.g.*, Arce, Pampillón, and Fariña, 2002; Vilariño, Fariña, and Arce, 2009) to control the distortions of the responses were employed. On the basis of several criteria, these protocols classified the responses as: a) clearly faking good and faking bad, which were reported to the sentencing court that decided in all cases whether to revoke the community order for incarceration; and b) reasonable grounds for suspecting malingering, leading to individual follow-up to detect potential false treatment adherence or faking treatment progress. The offender's failure to comply with the rehabilitation programme or those feigning progress in the one-to-one follow-up sessions were reported to the Courts who, on receiving a second report of lack of progress in rehabilitation, normally replaced community orders with imprisonment.

#### *The Galician Experimental Re-education Programme for Male Intimate-Partner Violent Offenders*

The Galician Experimental Re-education Programme for Male Intimate-Partner Violence Offenders, based on the additive/accumulative deficit paradigm (Lösel, Kolip, and Bender, 1992), assumes offenders have cognitive limitations or deficits which should be the target of rehabilitation. Complementarily, a no-model paradigm (Arce and Fariña, 1996) was adopted which implies that these deficit, and thus the contents of the programme, are not universal, but rather specific for each individual offender or typology of offender (*e.g.*, Loinaz, Echeburúa, and Torrubia, 2010; Loinaz *et al.*, 2011; Loinaz, Torrubia, Echeburúa, Navarro, and Fernández, 2009). Hence, pre-intervention assessment is crucial in order to detect the individual needs of each offender and in turn the programme contents (see Arce and Fariña, 2010, for the instruments of the pre-intervention assessment). Given that programmes driven to develop the IPVO's cognitive competence, the most effective intervention techniques for the development of the IPVO's cognitive competence involve a multi-modal approach (Redondo *et al.*, 2002) *i.e.*, cognitive (*e.g.*, denies the facts, justification), and behavioural (*i.e.*, rehearsing behaviour), the Galician programme adopted a multi-modal as well as a multi-level approach *i.e.*, individual, family, work, and socio-community. The most distinctive feature of the rehabilitation programme was the control of programme compliance and the offender's progress. Successful progress during rehabilitation reduces the probability reoffending (Gordon and Moriarty, 2003). The contents of the programme were in accordance with the current Spanish legislation *i.e.*, the programme begins with offenders being informed of the regulations and their obligations; the offenders acceptance and signing of the rehabilitation programme; assessment of the offender's needs and deficits in order to adjust programme



implementation; followed by the admission of the facts and accepting responsibility, which is the first step towards rehabilitation of all offenders. Moreover, the programme included a gender equality perspective in accordance with the best practice guidelines of the Spanish Ministry for Equality. The remaining contents were adjusted and sequenced to the specific needs and deficits of each individual offender, the most frequent being the development of social skills, control of jealousy, anger management, and alternative non-violent behaviour (for a full review of contents see Arce and Fariña, 2010). The duration of the rehabilitation programme, with a ratio of one session per week, ranged from 26 sessions (one year) to 52 sessions (two years), in accordance with the specific needs and deficits of each IPVO's progress. One-to-one sessions were held for cognitive interventions, followed by group sessions for rehearsing non-violent behaviour.

### *Ethical considerations*

The data was gathered safeguarding the rights of convicted offenders under the *Ley General Penitenciaria de 1979* [Spanish General Prison Law], and in compliances with the *Ley Orgánica 15/99 de Protección de Datos de Carácter Personal* [Spanish Data Protection Law].

## **Results**

### *Pre-rehabilitation assessment*

In comparison to the normative population, the results for the assessment of the IPVOs (see Table 1) revealed, in line with previous findings, significant differences for depression, hostility, and paranoid ideation, with small effect sizes ( $d < 0.5$ ), which were higher for IPVOs than for the general population. In other words, hostility and paranoid ideation characterised IPVOs in terms of aggression, anger, fury, irritability, rage, resentment, suspicious, fear of losing autonomy, need of control, and with difficulties in expressing their hostility which have been associated by the literature, both theoretically and empirically, with persistent violent behaviour (e.g., Beck, 1999; Hutchings, Gannon, and Gilchrist, 2010; Maruna, 2004). These variables that nurture and sustain the violent component of IPVOs go beyond purely sexist beliefs regarding violence against women, and become an inherent violent personality trait. Failure to control these internalizing symptoms through rehabilitation will eventually give rise to recidivism in violence, particularly gender violence. In addition, in comparison to the normative population, convicted IPVOs exhibit more depressive symptomatology, which is comorbid with irritability and hostility *i.e.*, depressive moods that frequently lead to irritability, aggressiveness and anger (American Psychiatric Association, 2000).

Moreover, the contrast of the pre-rehabilitation global distress indices with the normative population revealed a similar Global Severity Index (GSI),  $t(129) = 0.51$ ; *ns*;  $d = 0.03$ , and Positive Symptom Total (PST),  $t(129) = -0.63$ ; *ns*;  $d = -0.05$ , and a higher,  $t(129) = 3.22$ ;  $p < .01$ ;  $d = 0.30$ , Positive Symptom Distress Index (PSDI) for IPVOs ( $M_s = 1.46$  and  $1.32$  for IPVOs and the normative population, respectively).

The data obtained underscored the need to contrast the psychopathology of the IPVOs. In comparison to the clinical risk cut-off value ( $T_{63}$ , Derogatis, 1977), the results revealed that IPVOs were below the risk cut-off value of depressive disorders (test value 0.70),  $t(129) = -3.88$ ;  $p < .001$ , and paranoid ideation (test value 0.87),  $t(129) = -7.80$ ;  $p < .001$ . Nevertheless, levels of hostility were within the risk region (test value 0.74),  $t(129) = 1.41$ , *ns*.

In short, IPVOs are not mentally ill; nevertheless, they differ from the normative populations in the underlying internal mechanisms that forerun violence and the perseverance in offending. Thus, effective treatment involves the control of the underlying internal mechanisms linked to persistent IPV reoffenders.

**TABLE 1.** One sample *t*-test.

<i>Variables</i>	<i>t</i>	<i>p</i>	<i>M<sub>pre</sub></i>	<i>M<sub>NP</sub></i>	<i>d</i>
Somatisation	-1.26	.209	.29	.36	-0.11
Obsessive-compulsive	0.77	.445	.42	.39	0.06
Interpersonal sensitivity	1.29	.196	.33	.29	0.10
Depression	2.58	.011	.50	.36	0.27*
Anxiety	-0.63	.529	.28	.30	-0.05
Hostility	3.85	.000	.62	.30	0.44*
Phobic anxiety	0.99	.324	.16	.13	0.09
Paranoid ideation	2.59	.001	.47	.34	0.25*
Psychoticism	0.16	.870	.14	.14	0

*Note.*  $df(129)$ ;  $M_{pre}$ : pre-rehabilitation mean of the IPVOs;  $M_{NP}$ : mean of the normative population as test value (Derogatis, 1977). \* small effect size.

#### *Analysis of the rehabilitation effects on the global indices of distress*

The results of a repeated measures MANOVA of the rehabilitation factor (pre- vs. post-rehabilitation) on global indices of distress revealed a significant multivariate rehabilitation effect,  $F(3, 127) = 7.70$ ;  $p < .001$ ;  $\eta^2 = .154$ ;  $1-\beta = .987$ . Moreover, the effect size,  $f = .43$ , was large ( $f \geq .40$ ), and explained 15.4% of the variance.

As for the univariate effects (see Table 2), a significant reduction in the PST with a mean fall of 18 symptoms to 13 symptoms following rehabilitation was observed. Moreover, the effect size,  $f = .35$ , was moderate ( $.25 > f < .40$ ), explaining 10.8% of the variance.

**TABLE 2.** Univariate effects for the rehabilitation factor (pre- vs. post-rehabilitation). Within-subjects effects.

<i>Variables</i>	<i>F</i>	<i>p</i>	$\eta^2$	<i>1-\beta</i>	<i>M<sub>pre</sub></i>	<i>M<sub>post</sub></i>
Global Severity Index (GSI)	1.24	.268	.009	.197	.33	.73
Positive Symptom Total (PST)	15.63	.000	.108	.975	18.47	13.28
Positive Symptom Distress Index (PSDI)	1.01	.317	.008	.170	1.46	1.83

*Note.*  $df(1, 129)$ ;  $M_{pre}$ : pre-rehabilitation mean;  $M_{post}$ : post-rehabilitation mean.



Bearing in mind the previous results *i.e.*, greater distress or positive symptom severity, but no significant effect in this dimension of rehabilitation, the sample of rehabilitated offenders was assessed to determine if the PSDI remained higher among offenders than for the normative population. The results showed a close parity between both samples ( $M = 1.31$ ),  $t(129) = -0.17$ ; *ns*.

#### *Rehabilitation effects on the underlying internal mechanisms*

The results for the repeated measures MANOVA revealed a significant multivariate rehabilitation effect,  $F(9,121) = 35.45$ ;  $p < .001$ ;  $\eta^2 = .403$ ;  $1-\beta = 1$ . Succinctly, the rehabilitation programme had a significant effect and a large effect size,  $f = 0.82$ , explaining 40.3% of the variance.

**TABLE 3.** Univariate effects for the rehabilitation factor (pre- vs. post-rehabilitation). Within-subjects effects.

<i>Variables</i>	<i>F</i>	<i>p</i>	$\eta^2$	$1-\beta$	$M_{pre}$	$M_{post}$
Somatisation	0.00	.981	.000	.050	.29	.29
Obsessive-compulsive	9.37	.003	.068	.860	.42	.29
Interpersonal sensitivity	22.12	.000	.146	.997	.33	.18
Depression	19.49	.000	.131	.992	.50	.26
Anxiety	9.75	.002	.070	.873	.28	.17
Hostility	45.52	.000	.261	1	.62	.06
Phobic anxiety	8.39	.004	.061	.820	.16	.08
Paranoid ideation	18.13	.000	.123	.998	.47	.26
Psychoticism	23.93	.000	.156	.998	.14	.05

*Note.*  $df(1,129)$ ;  $M_{pre}$ : pre-rehabilitation mean;  $M_{post}$ : post-rehabilitation mean.

The univariate effects for the rehabilitation factor (pre- vs. post-rehabilitation) were significant for the following variables (see Table 3): obsession-compulsion, interpersonal sensitivity, depression, anxiety (generalized and acute), hostility, phobic anxiety, paranoid ideation, and psychoticism. Post-rehabilitation offenders exhibited lower levels of obsession-compulsion, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism (in non-psychiatric populations it is associated to interpersonal alienation *i.e.*, feeling different to others, feeling mistreated, misunderstood, unwanted, finding it difficult to express their hostility or in extreme cases the belief that someone is trying physically harm them).

Thus, the rehabilitation effects were significant and positive for the underlying internal mechanisms linked to persistence in intimate-partner violence offending *i.e.*, depression, anger/hostility and persecutory ideas; in anxiety disorders (obsession-compulsion, anxiety generalized and specific/acute) that exacerbate the previous disorders (Lysaker and Salyers, 2007); and interpersonal alienation (psychoticism) and interpersonal sensitivity (feelings of inadequacy and inferiority), which are comorbid with violence (Binswanger *et al.*, 2010). As for the effect size these were large for interpersonal sensitivity ( $f = .43$ ), hostility ( $f = .60$ ), and interpersonal alienation ( $f = .43$ ); moderate for

depression ( $f = .39$ ), and persecutory ideas ( $f = .37$ ); and small ( $f < .25$ ) for anxiety ( $f = .27$ ), phobic anxiety ( $f = .25$ ), and obsession-compulsion ( $f = .27$ ).

#### *Case study of rehabilitation effects*

The results of the case study of rehabilitation effects (see Table 4), showed a significant rehabilitation effect on the fall of potential pre-rehabilitation risk cases to a region of post-rehabilitation normality in interpersonal sensitivity from 18.5% to 1.5%; in depression from 26.9% to 6.9%; in anxiety (generalized and acute) from 16.2% to 7.7%; in hostility from 26.2% to none; in phobic anxiety from 16.2 to 3%; in persecutory ideas from 18.5 to 3.8%; and interpersonal alienation (psychoticism) from 8.8% to 0.8%.

The effects of rehabilitation (therapeutic improvement) on pre-rehabilitation risk cases (see Table 4) was 61.8% for interpersonal sensitivity; 55.7 % for depression; 24.9% for anxiety; 100% for hostility; 81% for anxiety phobic; 79.2% for paranoid ideation; and 90.9% for interpersonal alienation (psychoticism). Furthermore, Table 4 shows a 95% CIs for therapeutic improvement due to rehabilitation. This means that therapeutic improvement ranged, with a 95% probability, from 80.7% to 100% for interpersonal sensitivity; from 59.8 to 88.8% for depression; from 30% to 73.8% for anxiety; from 64.2% to 97.8% for phobic anxiety; from 61.8% to 96.6% for paranoid ideation; from 73.9% to 100% for psychoticism; and 100% for hostility. The rehabilitation effect size was large for hostility; medium for sensitivity interpersonal, depression, and paranoid ideation; and small for anxiety, phobic anxiety, and psychoticism (see Table 4). Moreover, for those measures with no significant rehabilitation effects (*i.e.*, somatisation, obsession-compulsion), the CI revealed there were no adverse effects (below zero).

**TABLE 4.** Pre- and post-rehabilitation risk of clinical cases and therapeutic improvement among IPVOs in rehabilitation at the Galician Re-education Programme.

<i>Variables</i>	$R_{pre}$	$R_{post}$	$\chi^2$	$h$	$TI$	<i>95% CI</i>	
<i>lower</i>						<i>upper</i>	
Somatisation	.146	.100	1.13	.140	.316	.107	.525
Obsessive-compulsive	.100	.077	0.39	.082	.231	.002	.460
Interpersonal sensitivity	.185	.015	18.62***	.643 <sup>++</sup>	.917	.807	1
Depression	.269	.069	15.36***	.558 <sup>++</sup>	.743	.598	.888
Anxiety	.162	.077	3.90*	.266 <sup>+</sup>	.524	.300	.738
Hostility	.262	.000	-	1.075 <sup>+++</sup>	1	-	-
Phobic anxiety	.162	.030	11.56***	.480 <sup>+</sup>	.810	.642	.978
Paranoid ideation	.185	.038	12.45***	.502 <sup>++</sup>	.792	.618	.966
Psychoticism	.085	.008	8.33**	.413 <sup>+</sup>	.909	.739	1

*Note.* The risk criterion was established using the  $T \geq 63$  score of the male normative group as this cut-off point, which provides good levels of sensibility and specificity for the classification of clinical cases (Derogatis, 1977). Thus, IPVOs who exceeded the cut-off point fell within the risk region of being classified as potential clinical cases.  $R_{pre}$ : pre-rehabilitation probability of risk of clinical cases;  $R_{post}$ : post-rehabilitation probability of risk of clinical cases; \*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$ ;  $TI$ : therapeutic improvement, probability derived from the total number of post-rehabilitation IPVOs who abandoned the clinical risk region;  $h$ : effect size, resulting from the difference between  $\Phi_1 - \Phi_2$ , where  $\Phi$ : 2arcosin  $\text{SQRT}(P)$ ; +++ large size; ++ medium size; + small size; CI: confidence interval for  $TI$ .

The comparison of the rehabilitation effects on the risk of clinical cases between IPVOs and the normative population showed (see Table 5) that the probability of potential risk cases among IPVOs was equal or less than in the normative group in all of the variables under study. Thus, offenders who had completed rehabilitation abandoned the risk region and were within the limits for the normative population.

Finally, the prevalence of risk cases was significantly lower for post-rehabilitation IPVOs than for post-rehabilitation prison inmates in all of the variables, save somatisation that was equal for both populations (see Table 5). Hence, the greater effectiveness of community rehabilitation in comparison to rehabilitation in closed prisons.

**TABLE 5.** Contrastive analysis of post-rehabilitation risk of clinical cases at the Galician Re-education Programme with the normative population and post-rehabilitation prison inmates.

<i>Variables</i>	<i>P<sub>PGP</sub></i>	<i>P<sub>PPI</sub></i>	<i>Z<sub>TV</sub></i>	<i>Z<sub>PPI</sub></i>
Somatisation	.100	.135	0	-1.25
Obsessive-compulsive	.077	.442	-0.88	-14.04***
Interpersonal sensitivity	.015	.144	-3.27**	-10.75***
Depression	.069	.357	-1.19	-11.52***
Anxiety	.077	.202	-0.88	-5.00***
Hostility	.000	.327	-3.85***	-6.29***
Phobic anxiety	.030	.135	-2.69**	-6.56***
Paranoid ideation	.038	.433	-2.38**	-19.75***
Psychoticism	.008	.337	-3.53***	-29.91***

*Note.*  $P_{PGP}$ : post-rehabilitation probability of risk of clinical cases in the Galician Re-education Programme;  $P_{PPI}$ : observed probability of risk of clinical cases (Arce, Fariña, and Naranjo, 2007) in a population of post-rehabilitation prison inmates [the population ( $N = 80$ ) consisted of first-time offenders ( $n = 39$ ), and re-offenders ( $n = 41$ ). Offenders on psychiatric wards and feigners good and bad were excluded from the study. All offenders were classified by the rehabilitation team as having adhered to treatment and were in the final phase of rehabilitation *i.e.*, on the point of terminating their mandatory community orders].  $Z_{TV}$ : Z-scores for the comparison of the probability of risk of clinical cases for IPVOs on rehabilitation with a test value of .10 [the  $T_{63}$  score, the risk criterion for Derogatis (1977), leaves 10% of subjects exceeded this cut-off point].  $Z_{PPI}$ : comparison of risk probability for IPVOs serving mandatory rehabilitation community orders with the population of post-rehabilitation prison inmates; \*\*\*  $p < .001$ ; \*\*  $p < .01$ .

## Discussion

The interpretation and generalization of the results of this study are subject to several limitations that should be borne in mind. First, IPVOs who had had their community rehabilitation orders revoked by the courts for faking good or faking bad were eliminated from the study. Though this is an unusual procedure, it should not be overlooked that a common practice and trait of delinquents is to simulate (*e.g.*, American Psychiatric Association, 2000). Second, the results were for offenders on community rehabilitation orders, and cannot be generalized to offenders serving their sentences under other regimes. In fact, the rehabilitation effect sizes of the meta-analysis were greater for community programmes than for inmates (*e.g.*, Lipsey and Wilson, 1998).

Third, the offenders were convicted for intimate-partner violence, whereas the effectiveness of rehabilitation programmes is moderated by the type of crime as revealed by meta-analyses (see Babcock *et al.*, 2004; McGuire, 2008; Redondo *et al.*, 2002). Fourth, cognitive disorder levels vary between re-offenders and first-time offenders as was the case in all of the IPVOs of this study (Arce *et al.*, 2007). Bearing in mind these drawbacks, the following conclusions may be drawn:

- a) There was no causal relationship between psychopathological and intimate-partner violence *i.e.*, mental illness itself did not explain violence. Hence, IPVOs would not benefit from therapeutic programmes for intimate-partner violence (IPV). Conversely, IPVOs with severe psychopathological disorders should undergo clinical therapy for clinical disorders as well as IPVO rehabilitation. De facto, according to the aforementioned legal proceedings, the targets of rehabilitation are the psychosocial variables linked to offending and not the psychopathological disorders. Moreover, the results of this study do not lend support to the dual psychiatric pathology model (*e.g.*, Barea *et al.*, 2010) that combines IPV with other clinical pathologies.
- b) IPVOs serving community rehabilitation orders exhibited hostility (*i.e.*, aggression, anger, fury, irritability, rage, resentment), and persecutory ideas (*i.e.*, suspicious, fear of losing autonomy, need of control, difficulties in expressing their hostility), that the literature has systematically reported as the best predictors of violent behaviour (*e.g.*, Andrews and Bonta, 2010; Baker, van Hasselt, and Sellers, 2008; Firestone, Nunes, Moulden, Broom, and Bradford, 2005; James and Seager, 2006), and in particular, IPV (Robertson and Murachver, 2007). In this study, violent thinking stemmed from the high pre-rehabilitation levels of hostility and paranoid ideation. This violent thinking, that contributes to and sustains offending, is anchored in cognitions that are internal, stable and global, constituting what has been termed in offender rehabilitation as toxic cognitions (Maruna, 2004). These cognitions raise the risk of reoffending, and the persistence of violent behaviour (*e.g.*, Beck, 1999; Hutchings *et al.*, 2010; Maruna, 2004) as well as being highly resistant to rehabilitation, and hindering compliance with rehabilitation orders (Isorna, Fernández-Ríos, and Souto, 2010; Wormith and Olver, 2002). Consequently, as a toxic cognition, violent thinking requires rehabilitation given that due to its internal, stable and global nature, spontaneous remissions cannot be expected. Thus, any effective, stable, and global rehabilitation programme for these offenders must address the control of violent thinking.
- c) A high prevalence of somatization disorders such as depressive moods and anxiety have been observed among offenders and, in particular, incarcerated offenders (*e.g.*, Binswanger *et al.*, 2010; Morgan, Fisher, Duan, Mandracchia, and Murray, 2010). Though it has been postulated that these disorders are responsible for violent and delinquent behaviour, it is more plausible to believe and commonly agreed that violent and delinquent behaviour are the result of imprisonment, especially for first-time offenders (*e.g.*, Palmer and Binks, 2008). Our results are inconsistent regarding this hypothesis. On the one hand, on

prison admittance, offenders were found to have a higher prevalence of depressive symptomatology than offenders serving community orders; notwithstanding, the data supports the hypothesis that depression is linked to delinquent behaviour in general (Loeber, Stouthamer-Loeber, and White, 1999), and according to this study IPV violence. Since depressive disorders have been associated to delinquent behaviour and recidivism, with the estimated prevalence among male offenders to be around 17% (Binswanger *et al.*, 2010), IPVO community rehabilitation should reduce depressive symptomatology to levels comparable to the general population if it is to be fully effective in preventing recidivism.

- d) In relation to somatomorphic and anxiety disorders, normal levels were observed among IPVOs. This may be explained by the fact that IPVOs do not experience the underlying internal mechanisms associated to offending, nor do community orders prevent the development of these that characterize incarceration. This issue, however, goes beyond the scope of this study and is the subject of further research.
- e) A moderate positive rehabilitation effect size was observed on the three dimensions that differentiated the pre-rehabilitation offender population from the general population *i.e.*, depression, hostility, and paranoid ideation, with moderate, large, and moderate effect sizes, respectively. In short, the results underscore the effectiveness of the Galician rehabilitation programme on underlying internal mechanisms regarding IPV and reoffending. In addition, rehabilitation had an impact on cognitions related to interpersonal sensitivity (large size), psychoticism, that is, social alienation (large size), and anxiety, phobic anxiety, and obsession-compulsion (small sizes). Of the positive rehabilitation effects, those on social alienation (*i.e.*, difficulty in expressing hostility) and interpersonal sensitivity (*i.e.*, feelings of inadequacy and inferiority, hypersensitivity, feeling uncomfortable and inhibited in interpersonal relations) were highly remarkable particularly since they foster violent behaviour.
- f) In terms of the case study, the rehabilitation effects led to a therapeutic improvement in the variables that discriminated the pre-rehabilitation offenders from the general population *i.e.*, depression (moderate effect), hostility (large effect), and paranoid ideation (moderate effect). Moreover, rehabilitation was associated to therapeutic improvements in the other variables related to violence: interpersonal sensitivity and anxiety, both generalized and acute or specific (moderate effect), and social alienation (small effect size). Notwithstanding, despite rehabilitation, some offenders remained in the risk region in the underlying internal mechanisms that play a crucial role in nurturing violence and raises the risk of recidivism.

In conclusion, the Galician Re-education Programme for Male Intimate-Partner Violence Offenders was effective for the rehabilitation of the underlying internal mechanisms that spur violence, reinforce the resistance to rehabilitation, and raise the risk of recidivism.

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Received January 5, 2012

Accepted March 22, 2012