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DIFFERENCES IN PREVALENCE OF PARTNER AGGRESSION AS THE REVISED CONFLICT TACTICS SCALE: INDIVIDUAL AND DYADIC REPORT

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Abstract

In the present study, the reliability and validity of the maximum dyadic report in the estimation of the prevalence of partner aggression was examined by means of the Revised Conflict Tactics Scale. The participants were 590 heterosexual couples from the Region of Madrid. The maximum dyadic report identified more aggressive behaviors and similar prevalences, in men and women, of psychological aggression (80.7% vs. 81.4%) and physical aggression (16.8% vs.17.6%), except for sexual aggression (26.8% vs.16.1%). The internal consistency of the Psychological Aggression Scale was similar and comparable in magnitude to the reliability of the perpetrators' and victims' individual reports, not observed the same pattern in the remaining scales. The correlations between the scales of Psychological and Physical Aggression in the maximum dyadic report were significant. Lastly, the results reveal the existence of bias in men and women's self-report measures and the relevance that the maximum dyadic report has in legal and clinical contexts when assessing couples level of aggression.
KEY WORDS: *maximum dyadic report, partner aggression, reliability, validity*.

Resumen

Este estudio examinó la fiabilidad y validez del informe diádico máximo en la estimación de la prevalencia de agresión en la pareja mediante la "Escala de tácticas para el conflicto revisada". Participaron 590 parejas heterosexuales de la Comunidad de Madrid. El informe diádico máximo identificó más comportamientos agresivos y prevalencias similares, en hombres y mujeres, de agresión psicológica (80,7% vs. 81,4%) y agresión física (16,8% vs. 17,6%), excepto en agresión sexual (26,8% vs. 16,1%). La consistencia interna de la escala de agresión psicológica fue similar y comparable en magnitud a la fiabilidad de los informes individuales de perpetradores y víctimas, no observándose el mismo patrón en el resto de escalas. La correlación entre la escala de agresión psicológica grave y física basada en el informe diádico máximo fue significativa. Los resultados muestran la existencia de sesgos en los informes individuales de hombres y mujeres y la importancia del informe diádico máximo en contextos legales y clínicos cuando se evalúa la agresión en la pareja.
PALABRAS CLAVE*: informe diádico máximo, agresión en la pareja, fiabilidad, validez*.

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Introduction

The Conflict Tactics Scale (CTS; Straus, 1979), in its diverse versions, it has been used in numerous social surveys and epidemiological studies in various countries and has led to the rigorous and thorough study of the phenomenon of violence in intimate partner relationships in young people and adults of both sexes (for review see Rathus & Feindler, 2004).

Domestic violence was not a unitary phenomenon, and different types of partner violence were apparent in different contexts, samples, and methodologies (Johnson, 2011). The research in this area argued that it is quite apparent that both men and women use physically aggressive tactics during disagreements, a critical dimension of intimate partner violence (IPV) (Capaldi & Langhinrichsen-Rohling, 2012). In an exhaustive review, Desmarais, Reeves, Nicholls, Telford, and Fiebert (2012a, b) observed that the rates of perpetration and victimization of IPV in men and women varied significantly as a function of the type of sample. Summing up, the lowest victimization rates were observed in representative samples or epidemiological studies (approximately 17%) and the highest rates were observed in samples of university students (27%) and legal samples (approximately 32%). However, the lowest perpetration rates were observed in representative samples or epidemiological studies (21%) and the highest rates were observed in community (approximately 26%) and clinical samples (approximately 36%). Other reviews carried out with representative USA samples show that approximately 10% of men and women have suffered physical aggression by their partners (Esquivel-Santoveña & Dixon, 2012; Jose & O´Leary, 2009).

The research conducted with the CTS has addressed the limitations raised by self-report measures, examining interpartner agreement about acts of aggression. However, agreement may not only vary depending on the method used to estimate it, but also on the characteristics of the study sample (Armstrong, Wernke, Medina, & Schafer, 2002). Consequently, agreement is also an important limitation in the estimation of this phenomenon, highlighting the existence of a number of biases that can influence men and women when reporting their own acts of aggression or those of the partner such as, social desirability, the perception of the acts of aggression or the possibility that relationship satisfaction or dissatisfaction influences the concordance of partners' reports (Archer, 1999; Caetano, Field, Ramisetty-Mikler, & Lipsky, 2009; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011; O´Leary & Williams, 2006).

The use of dyadic data is another way to deal with the limitations of self-report measures in the estimation of partner aggression, as they allow us to consider the higher aggression report of the dyad. This highest report has become known as maximal dyadic report of intimate partner aggression (Heyman & Slep, 2006a). According to O´Leary and Williams (2006), maximum dyadic report reflect whether either member of a couple (dyad) reported the occurrence of any aggressive behavior within a scale during the last year by using the Revised Conflict Tactics Scales (CTS-R; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Using the dyadic report, one can capitalize on the interdependent nature of dyadic

data (Kenny, Kashy, & Cook, 2006). O´Leary and Williams (2006) examined a community sample of 453 married couples, finding that prevalences of aggressive acts based on the maximum dyadic report were higher than men and women's individual perpetration and victimization reports. Furthermore, the results highlighted the potential disagreement about acts of aggression between the couple members.

The CTS-R (Straus et al., 1996) has been used in a large variety of samples, but in United States few studies have analyzed the psychometric properties of the scale (Jones, Ji, Beck, & Beck, 2002; Lucente, Fals-Stewart, Richards, & Goscha, 2001; Newton, Connelly, & Landsverk, 2001; Straus et al., 1996). Lastly, O´Leary and Williams (2006) analyzed the CTS-R scales in a community sample of married couples, finding high internal consistency of the Negotiation, Psychological and Physical Aggression Scales, with Cronbach's alpha coefficients higher than .70. The Sexual Coercion had low internal consistency (Cronbach's alpha coefficients in the range of = .17-.42) and Injury scales had variable internal consistency (Cronbach's alpha coefficients in the range of = .33-.74).

In Spain, recently studies have estimated the prevalence of psychological and physical intimate partner aggression in heterosexual couples from the region of Madrid (Graña & Cuenca, 2014) and the psychometric properties of the CTS-R in adults of both sexes (Graña, Andreu, Peña, & Rodríguez, 2013). Although prior studies appraised the factor structure of the CTS-R in university students (Corral & Calvete, 2006; Montes-Berges, 2008), female victims of maltreatment (Calvete, Corral, & Estévez, 2007), and partner aggressors (Loinaz, Echeburúa, Ortiz-Tallo, & Amor, 2012), there are no studies analyzing internal consistency of the scale in community samples of cohabitating married couples.

In the present study, we examined the reliability and validity of the items and scales of the maximum dyadic report in the estimation of the prevalence of partner aggression by means of the CTS-R scale. In view of the difficulty estimating the prevalence of physical aggression in community samples, we considered that the maximum dyadic report could more accurately reflect the perpetration rates of IPV in men and women. Furthermore, it is expected that the results corroborate the rates of physical aggression reported in previous research in a community sample (Desmarais et al., 2012b).

Method

Participants

The participants of the study consisted of 590 adult heterosexual couples, aged between 18 and 80 years, from the Region of Madrid. All participants provided the following socio-demographic data: age, sex, civil status, nationality, partner's sex. As a function of the goals of the study, the inclusion criteria were being over 18 years of age and being in a heterosexual couple relationship either currently or in the past 12 months.

Of the participants, 78.9% were married, 14.3% were single with a partner but not cohabitating**,** 4.9% were common-law couples, and 1.9% were widowed,

separated, or divorced and living with a partner. Men's mean age was 45.39 years (*SD*= 10.43) and women's mean age was 42.63 (*SD*= 10.16). The average relationship duration was 18.45 years (*SD*= 11.96). Of the sample, 97% were Spaniards, and 3% were of other nationalities. Concerning occupation, 43.2% were employees, 16.4% were civil servants, 11.4% were self-employed or autonomous workers, 8% were businessmen, 18.7% were unemployed, and 2.3% were students.

Instruments

a) *Socio-demographic Questionnaire ad hoc*. Diverse items were included to assess participants' characteristics in the following socio-demographic and personal variables: age, sex, civil status, nationality, professional activity, and current partner's sex and age.
b) *The Revised Conflict Tactics Scale* (CTS-R; Straus et al., 1996). We used the Spanish version of the CTS-R by Graña et al. (2013). It is a self-report questionnaire with 39 duplicate items, that is, 39 questions as the perpetrator and 39 questions as the victim (78 items in total), on which participants rate the degree to which each member of the couple performs specific acts of physical, psychological, and sexual violence against the other partner, in addition to their use of justifications and negotiations to solve their conflicts. The respondent of the CTS-R scale should indicate how often he/she has carried out the acts mentioned in each item and how often his/her partner has carried them out. The response format ranges from 1 ("once in the past year") to 6 ("more than 20 times in the past year"); 7 means "never in the past year but it used to occur before" and 0 means "it has never occurred". For each item, participants indicate how frequently the incident has occurred in the past year. The main scores of the scale are: 1) *Prevalence*: these are dichotomic scores reflecting whether a participant reports the presence of a behavior defined in the scale in the past year. It is calculated by transforming responses 1-6 to 1, and responses 7 and 0 to 0. The item scores are not added, so the prevalence for each subscale will be 1 or 0 (Straus et al., 1996). 2) *Scores based on the Maximum Dyadic Report*: Maximum Dyadic Reports are based on whether a partner (husband or wife) reported that they perpetrated acts of aggression or had been the victim of acts of aggression. Sometimes the reports are seen as either or reports since the question being addressed is as follows: Did either the husband or the wife report such acts of aggression in the past year? For example, in the case of a woman reporting an act of male physical aggression, which her partner does not report, the variable would reflect the occurrence of male aggression; and vice versa: if a man reports perpetrating physical aggression against *his* partner but she does not report any physical aggression, the variable would indicate "male-to-female" physical aggression. 3) *Frequency*: Straus et al. (1996) propose a system for converting raw responses (0-7) to frequency scores. Their system leaves responses 0, 1, and 2 unchanged. Midpoint values are imposed on the responses that fall under the frequency labels with the following ranges: Response 3 (3-5 times)

is scored as 4, Response 4 (6-10 times) is scored as 8, Response 5 (11-20 times) is scored as 15, Response 6 (more than 20 times) is scored as 25, and Response 7 (not this year, but it happened in the past) is scored as 0. The method of substituting with the mid points of each category suggested by Straus et al. (1996) was not used for the frequency scores because it exaggerates the bias inherent in the distribution of aggression variables, thereby violating the assumption of normality underlying the statistical significance tests. The CTS-R scale shows good psychometric properties for the Spanish adult population (Graña et al., 2013). Cronbach's alpha on total scale for perpetration was .84 and for victimization was .83 as well as Negotiation scale (α= .76 and α= .75); Psychological Aggression (α= .72 and α= .73); Physical Aggression (α= .79 and α= .80); Sexual Aggression (α= .62 and α= .63) and Injuries (α= .75 and α= .69).

Procedure

The study used a quota sampling method to recruit a community sample of married or cohabitating couples from the Region of Madrid. In order to obtain the most representative sample possible of the active population of the diverse urban areas, 100 research assistants were selected from 300 candidates from the Department of Clinical Psychology of the Complutense University of Madrid, who wished to obtain research credits.

To achieve the aims of the study, the research assistants were assigned to different areas of the Region of Madrid, taking into account the population census and the following geographical areas to obtain the sample for the study: a) Madrid capital 55% (58 research assistants), b) Northern metropolitan area 5% (5 research assistants), c) Eastern metropolitan area 9% (10 research assistants), d) Southern metropolitan area 24% (20 research assistants), and e) Western metropolitan area 7% (7 research assistants). The research assistants were informed of the general characteristics of the study and that the general goal was to analyze different aspects of daily cohabitation of intimate couple relationships regarding the way they negotiate and resolve conflicts.

This information was provided to the couples that consented to participate in the study. The participants that agreed to participate in the study had to complete the questionnaire and send it anonymously and independently of their couple to a PO Box.

The procedure was as follows: a) each research assistant had to collect a quota of 8 couples from the assigned census area, 1/3 of whom could be acquaintances and the rest unknown, that had to be approached mainly by using a random dialing procedure and asking them if they wanted to participate in this study; b) the couples were selected taking into account the following age range:18-29, 30-50, and >50; c) after obtaining the study quota, the research assistant had to give the code of each couple member to the director of the Project (e.g., 1-a and 1-b up to 8-a and 8-b) the name, age, and phone number or email address of each couple, and d) to confirm the veracity of the data, a random control of 10% of the participants of the study was performed.

Initially, 1.600 protocols were handed out, and the response rate was 77.7%, that is, a total of 1.243 protocols were returned, of which 5% (63) were rejected because they had faulty data, had been completed randomly, or had low response consistency.

The missing data were replaced through the Expectation–Maximization (EM) algorithm (SPSS, version 19.0). The prevalence statistics reported in the present study are based on valid cases (i.e., missing data were not replaced prior to computing this statistic, and as no differences were obtained then, they were replaced with imputed values).

Data analysis

Analyses were performed with the SPSS v.19.0. (IBM, 2010) In the section of Results, we present the Pearson correlations between the scales and subscales of the CTS-R based on the maximum dyadic report. With the exception of the chronicity and the correlations between CTS-R scales, the results are based on untransformed raw score values (0-6).

Results

Prevalence and chronicity

The prevalence of aggressive acts described in the CTS-R scales based on the maximum dyadic report (Max) was higher than men and women's individual perpetration and victimization reports (table 1). Based on individual reports, most participants were involved in strategies of conflict negotiation, and psychological aggression was the most frequent form of aggression in the couple. Concerning physical aggression, 12% of the men and 10% of the women reported perpetrating physical aggression, and about 10% reported having suffered physical aggression. Concerning acts of sexual coercion, 19% of the men and 17% of the women were reported as having perpetrated acts of sexual coercion. The prevalence rates of Injury inflicted by male (2%) and female (3%) perpetrators in the present sample was low.

Prevalence based on the maximum dyadic report (Max) showed that more than 80% of men and women engaged in acts of psychological aggression, and 17% of men and 18% of women engaged in acts of physical aggression. Concerning acts of sexual coercion, 27% of the men and 16% of the women were reported as having perpetrated acts of sexual coercion during the past year. Lastly, the prevalence of injuries inflicted by men and women in this sample was low even when using the maximum dyadic report (4.4 *vs* 3.7%), respectively.

Table 1
Prevalence statistical by perpetrator's sex and maximum dyadic reports for CTS-R (*N*= 590)

Scales	Male perpetrator (%)			Female perpetrator (%)		
	Men	Women	Max	Women	Men	Max
Negotiation	95.8	96.9	98.5	97.6	96.6	98.5
Psychological aggression	68.1	68.0	80.7	72.2	65.9	81.4
Minor	67.1	66.6	80.2	70.7	64.4	80.3
Severe	19.2	21.9	30.0	24.7	21.4	33.1
Physical aggression	12.4	9.7	16.8	10.3	11.9	17.6
Minor	11.9	8.3	15.4	9.6	9.7	14.7
Severe	1.7	2.5	4.1	3.1	4.4	6.3
Sexual aggression	18.6	17.1	26.8	10.8	9.5	16.1
Minor	18.3	16.1	25.9	10.8	8.5	15.3
Severe	0.8	1.7	2.2	0.2	1.5	1.5
Injuries	2.2	2.9	4.4	0.8	3.4	3.7
Minor	1.4	2.5	3.4	0.8	2.7	3.2
Severe	1.0	0.5	1.4	0.0	0.8	0.8

Note: CTS-R= Revised Conflict Tactics Scale; Max: maximum dyadic report.

The frequency of aggressive acts based on the maximum dyadic report (Max) was higher than in the individual reports of men and women (table 2). Psychological aggression presented the highest frequency and, in all types of aggression, the highest frequencies corresponded to less severe acts.

Table 2
Chronicity statistical by perpetrator's sex and maximum dyadic reports for CTS-R (*N*= 590)

Scales	Male perpetrator (*M*)			Female perpetrator (*M*)		
	Men	Women	Max	Women	Men	Max
Negotiation	47.81	48.56	61.29	46.44	52.79	64.97
Psychological aggression	8.69	11.89	14.97	9.74	12.81	16.34
Minor	7.49	9.67	12.68	7.98	10.52	13.65
Severe	1.20	2.22	2.66	1.75	2.29	3.09
Physical aggression	0.72	0.67	1.17	0.91	0.93	1.55
Minor	0.62	0.58	1.00	0.64	0.75	1.11
Severe	0.10	0.09	0.17	0.27	0.18	0.46
Sexual aggression	1.30	1.80	1.99	0.34	0.64	0.84
Minor	1.26	1.56	1.75	0.26	0.63	0.77
Severe	0.03	0.24	0.4	0.07	0.01	0.07
Injuries	0.15	0.28	0.41	0.33	0.04	0.37
Minor	0.01	0.23	0.29	0.31	0.04	0.34
Severe	0.03	0.05	0.13	0.02	0.00	0.02

Note: CTS-R= Revised Conflict Tactics Scale; Max: maximum dyadic report.

Internal consistency

The internal consistency of the Psychological Aggression scale was similar and comparable in magnitude to the reliability of the perpetrators' and victims' individual reports, but this pattern of results was not observed in the Physical Aggression Scale (table 3). Regardless of the report used, the Psychological Aggression Scale presented high internal consistency (Cronbach's alpha coefficients ranging between .71 and .75). The Physical Aggression Scale had high internal consistency (Cronbach's alpha coefficients ranging between .61 and .77). Internal consistency of the Injury Scale was low (Cronbach's alpha coefficients ranging between .14 and .50), as was its prevalence. Lastly, internal consistency of the Sexual Coercion Scale was low (Cronbach's alpha coefficients ranging between .30 and .60).

The correlations of the items with the total scales of Negotiation, and Psychological and Physical Aggression in the self-reports of perpetration and victimization and in the maximum dyadic report were higher than .50. The item-total correlations of the scale of Sexual Coercion were lower than the standard value of .50, except for the items of the scale of victims in the women. The Injuries scale presented considerable variability depending on the report used to calculate the coefficient (man, woman, or maximum dyadic report). The values of all the reports were below the conventional standard value of .50 (probably due to the low prevalence of injuries), except for the scale of male victims of injuries.

Correlations between CTS-R scales

Table 4 summarizes the Pearson correlations between the CTS-R scales based on the maximum dyadic report. Severe Psychological Aggression is a significantly stronger predictor of Physical assault than full-scale Psychological Aggression for both, men, $t_{(587)}$= -2.06, p< .05, d= 0.17, and women perpetrators, $t_{(587)}$= -2.56, p< .05, d= 0.21. Severe Physical assault is not a significantly stronger predictor of Severe Injury than full-scale Physical assault, $t_{(587)}$= -1.27, p> .05, and Severe Physical assault is not a significantly stronger predictor of full scale Injury than full scale Physical assault, $t_{(587)}$= 1.47, p> .05. As a whole, these results provide some evidence of convergent and discriminant validity regarding the level of severity of the scale of Psychological Aggression and the total scale of Physical Aggression.

We compared the correlations between the scales of Psychological and Physical Aggression obtained in the present study with those of the previous investigation. With reference to females' perpetration report, a correlation between psychological and physical aggression of .43 was obtained, lower than the correlation of .54 reported by Newton et al. (2001) in a sample of women at high risk of postpartum depression, but significantly lower than the correlation of .67 reported by Straus et al. (1996) in a sample of university students (z= -4.60, p< .001). Regarding males' perpetration report, a correlation of .33 was observed between psychological and physical aggression, significantly lower than the correlation of .71 reported by Straus et al. (1996) in a sample of university students (z= -7.29, p< .001).

Table 3
Alpha reliability coefficients of the CTS-R scales by perpetrator's sex and maximum dyadic reports

Scale/Item	Male perpetrator			Female perpetrator		
	Men	Women	Max	Men	Women	Max
Negotiation	(.74)	(.74)	(.71)	(.73)	(.74)	(.77)
01- Showed care	.71	.72	.68	.69	.71	.75
03- Explained side	.71	.70	.67	.71	.70	.74
13- Showed respect	.69	.68	.64	.68	.68	.75
39- Wkout problem	.69	.70	.69	.69	.70	.73
59- Suggested compromise	.72	.74	.69	.71	.73	.76
77- Agreed try solution	.71	.70	.64	.69	.69	.73
Psychological Aggression	(.71)	(.75)	(.73)	(.73)	(.72)	(.74)
05- Insulted or sworn	.67	.72	.67	.70	.69	.70
35- Shouted or yelled	.67	.72	.69	.69	.67	.71
49- Stomped out	.66	.73	.69	.69	.68	.71
67- Something to spite	.65	.71	.68	.69	.67	.69
25- Called fat or ugly	.69	.72	.69	.72	.70	.72
29- Destroyed something	.70	.73	.72	.71	.69	.73
65- Accused lousy lover	.70	.73	.71	.71	.70	.72
69- Threatened hit or throw	.71	.74	.73	.73	.71	.74
Physical Aggression	(.74)	(.77)	(.61)	(.67)	(.66)	(.72)
07- Threw something	.72	.74	.53	.63	.61	.67
09- Twisted arm or hair	.71	.73	.53	.62	.59	.68
17- Pushed or Shoved	.70	.73	.52	.56	.59	.66
45- Grabbed	.73	.75	.58	.65	.63	.68
53- Slapped	.70	.75	.60	.64	.66	.70
21- Used Knife or gun	.75	.78	.62	.68	.67	.72
27- Punched or hit	.72	.74	.59	.65	.61	.69
33- Choked	.74	.79	.62	.69	.67	.73
37- Slammed against Wall	.71	.74	.62	.66	.64	.71
43- Beat up	.73	.76	.62	.68	.67	.73
61- Burned or scalded	.75	.78	.62	.68	.66	.73
73- Kicked	.71	.76	.61	.65	.65	.69
Sexual Aggression	(.40)	(.60)	(.41)	(.33)	(.30)	(.44)
15- Sex no condom	.33	.54	.36	.31	.27	.45
51- Insisted in sex	.31	.60	.24	.20	.23	.35
63- Insisted in oral/anal sex	.26	.54	.26	.23	.19	.31
19- Forced oral/anal sex	.40	.58	.41	.33	.31	.38
47- Forced sex	.37	.56	.42	.34	.29	.41
57- Threatened for oral/anal sex	.40	.59	.38	.31	.28	.42
75- Threatened sex	.37	.55	.39	.30	.29	.41
Injuries	(.14)	(.26)	(.35)	(.50)	(.19)	(.48)
12-Sprain, bruise, small cut	.06	.47	.28	.44	.30	.42
72- Physical pain next day	.03	.07	.20	.51	.04	.21
24- Passed out hit on head	.09	.28	.31	.54	.20	.47
32- Went to the doctor	.17	.27	.33	.39	.22	.00*
42- Needed doctor but didn´t go	.17	.23	.37	.44	.20	.48
56- Broken bone	.14	.13	.33	.39	.03	.00*

Notes: CTS-R= Revised Conflict Tactics Scale; Max: maximum dyadic report. *Indicates zero item variance.

Table 4
Correlations among CTS-R scales for maximum dyadic report

Scales	1	2	2a	2b	3	3a	3b	4	4a	4b	5	5a	5b
1.Negotiation	-	.31**	.33**	.19**	.14**	.13**	.07	.16**	.16**	.00	.02	.01	.06
2.Psychological aggression	.21**	-	.95**	.73**	.43**	.43**	.16**	.17**	.16**	.03	.03	.02	.08
2a. Minor	.23**	.95**	-	.50**	.39**	.39**	.15**	.13**	.13**	.04	.00	.00	.08
2b. Severe	.09*	.72**	.49**	-	.36**	.35**	.18**	.18**	.19**	.00	.06	.05	.04
3.Physical assault	.09*	.33**	.29**	.27**	-	.92**	.54**	.16**	.14**	.12**	.07	.05	.11**
3a. Minor	.08*	.33**	.29**	.28**	.96**	-	.16**	.08*	.08*	.06	.04	.02	.10*
3b. Severe	.05	.12**	.10*	.11**	.49**	.25**	-	.22**	.16**	.28**	.08*	.08	.06
4.Sexual coercion	.14**	.36**	.28**	.38**	.33**	.29**	.33**	-	.97**	.27**	.11**	.11**	.03
4a. Minor	.17**	.31**	.27**	.27**	.24**	.17**	.27**	.92**	-	.02	.12**	.12**	.03
4b. Severe	-.02	.22**	.10*	.37**	.33**	.36**	.25**	.48**	.12**	-	-.01	-.01	.00
5.Injury	.04	.09*	.07	.11**	.17**	.13**	.30**	.08*	-.02**	.27	-	.99**	.18**
5a. Minor	.06	.01	.03	-.02	.10*	.04	.22**	-.02	-.02	-.01	.84**	-	.03
5b. Severe	-.02	.16**	.09*	.23**	.15**	.16**	.21**	.19**	-.01	.52**	.57**	.03	-

Notes: CTS-R= Revised Conflict Tactics Scale; Correlations for men perpetrators based on maximum dyadic report scores shown above the diagonal, and correlations for women perpetrators based on maximum dyadic report scores shown below the diagonal. **p*< .05; ***p*< .01 (bilateral).

Discussion

The present study analyzed the prevalence of various types of aggression (psychological, physical, and sexual aggression) in heterosexual couples, assessed with the CTS-R, based on self-report and maximum dyadic scores. Maximum dyadic report has rarely been reported and never with a Spanish population.

Results of this study confirmed the findings of previous studies showing that the prevalence based on the maximum dyadic report is higher than the prevalences based on individual reports of perpetrators and victims in all CTS-R scales, coinciding with the reports of O´Leary and Williams (2006). We observed the same tendency in the frequency scores.

In the present study, we found that the prevalence of psychological and physical aggression based on the maximum dyadic report was similar in men and women, but we did not observe the same pattern of results in sexual aggression. Although these results may imply that men and women similarly perpetrate acts of psychological and physical aggression, the maximum dyadic report reveals potential partner agreement about acts of aggression. In a similar study, O'Leary and Williams (2006) found a higher prevalence of psychological and physical aggression in women, except for sexual aggression, and they found underreporting of both physical and sexual aggression both by men and women in a suburban New York sample. Therefore, we consider that our results reveal that men and women underestimate their involvement in this type of acts, either as aggressors or as victims, because the prevalences of the individual reports were lower than those of the maximum dyadic report.

The percentage of female perpetrators according to the maximum dyadic report was slightly higher (18%) than the percentage of male perpetrators (17%).

In small community samples, Desmarais et al. (2012b) found the same tendency and rates of male perpetration ranging from 4% to 45% and rates of female perpetration ranging from 5.7% to 48%.

The internal consistency of the CTS-R scales presented the same tendency in both reports. The alpha coefficients corresponding to men and women's self-reports on the Negotiation, Psychological and Physical Aggression Scales were lower than those reported by Straus et al. (1996) in a sample of students. Concerning the Sexual Coercion and Injury Scales, alpha coefficients were low, which is in accordance with those obtained by O'Leary and Williams (2006). Nevertheless, the generalization of these results to samples of students is limited because student couples are frequently more aggressive than older couples (Straus et al., 1996).

The internal consistency of the psychological aggression scale based on the maximum dyadic report was similar and comparable in magnitude to the reliability of the individual reports of perpetrators and victims; however, the internal consistency of the physical aggression scale based on the maximum dyadic report was lower in men than in women. Items 7 (*Threw something*), 9 (*Twisted arm or hair*), 17 (*Pushed or Shoved*) and 45 (*Grabbed*) presented a low item-total correlation, suggesting that these items are not well adapted to the total of items that make up the scale. The maximum dyadic report revealed potential partner agreement in the responses to these items, and a possible explanation of these results is that men and women may have problems identifying these acts either as perpetrators or as victims due to their impact or their meaning, or due to other factors, such as social desirability, obliviousness caused by greater tolerance or acceptance of certain less severe acts of physical aggression during relationship conflicts.

These results corroborate the evidence found in diverse studies using samples of married couples living together, which reached the conclusion that men and women tend to underestimate acts of physical aggression, because the estimations of aggression based on the combined responses of both partners were, in general, higher than the individual responses of men and women (Caetano et al., 2009; Caetano, Schafer, Field, & Nelson, 2002; Szinovacz, 1983; Szinovacz & Egley, 1995).

In general, there is no particular alpha value that is adequate for all settings, although some authors posit that a Cronbach alpha value of .70 is sufficient criterion (Nunnally & Bernstein, 1994). Nevertheless, by itself, it is insufficient to assess whether the internal consistency of a scale is adequate (John & Benet-Martínez, 2000; Schmitt, 1996). Consequently, researchers using the CTS-R must use their own criteria about the levels of alpha reliability depending on the goals of the investigation, in addition to considering other important aspects such as the amplitude of the construct measured, the length of the scale, or whether the scale includes redundant items (O´Leary & Williams, 2006).

Lastly, the internal consistency of the scales of Sexual Aggression and Injuries was low and comparable in magnitude to the reliability based on the victims' reports. Given that the prevalence of sexual aggression and injuries is very low in community samples, future research should consider the possibility of eliminating

or changing the most problematic items because they do not provide an adequate measure to these scales. Clinically speaking, the low internal consistency of the Sexual Coercion and Injury Scales poses the need to use other external criteria such as medical reports, interviews about the context in which the aggressions occurred, and details about the acts of sexual coercion and/or injuries or to use other sexual coercion scales with higher internal consistency (Koss & Gidycz, 1985; Marshall & Holtzworth-Munroe, 2002).

The correlations between the CTS-R scales based on the maximum dyadic report were significant, revealing a significant predictive pattern between the scale of Severe Psychological Aggression and full-scale Physical Aggression, although this pattern was not confirmed between the scales of Physical Aggression and Injuries. The prevalence of psychological aggression was higher than the prevalence of physical aggression, and some results in cross-sectional and longitudinal studies show that psychological aggression is a risk factor for physical aggression (González, Echeburúa, & Corral, 2008; Salis, Salwen, & O'Leary, 2014).

These results contradict the general tendency of the mass media in countries like Spain, which consider that partner aggression is predominantly male. Studies like these contribute to providing objective data to determine the current situation of aggression in intimate partner relationship in a situational context. However, these results cannot be generalized to other situations as those that take place in a coercive context, which is more prevalent in clinical samples.

Clinical implications of these findings suggest that when partner aggression is situational, professionals should assess both members of a couple at the same level. The explanation that one member gives cannot explain the other's without being assessed. This situation applies to cases of custody or psychological problems in which psychological and physical aggression plays a role to explain them (e.g. couples, depression, personality disorders, alcohol problems). It also is important that professionals pay attention to their own bias about considering psychological and physical aggression more characteristic of one gender.

This study has several limitations that should be considered. The sample represents the greater Madrid area, and as such, it cannot be considered a sample that is representative of the country of Spain. Finally, the representativeness of the sample at the community level may have influenced the prevalence obtained, limiting the generalizability of the results to other types of populations, such as student or clinical samples.

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