

ITALIAN ADAPTATION OF THE MULTIDIMENSIONAL MEASURE OF EMOTIONAL ABUSE (MMEA)

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The purpose of the present study was to contribute to the research and literature on psychological abuse through the Italian adaptation of the Multidimensional Measure of Emotional Abuse (MMEA; Murphy & Hoover, 1999; Murphy, Hoover, & Taft, 1999) and to evaluate its psychometric properties. The MMEA is a multifactor measure assessing the following four subtypes of psychological abuse for both Victimization (abuse by the partner) and Perpetration (abuse by the self): Restrictive Engulfment, Denigration, Hostile Withdrawal, and Dominance/Intimidation. The sample was recruited from two cities in central Italy and comprised 417 college students (188 males and 229 females), who were involved in a heterosexual romantic relationship of at least six months' duration. Confirmatory factor analyses supported the original four-factor structure for both Victimization and Perpetration. Moreover, the four subscales showed satisfactory internal consistency coefficients (ρ) for both Victimization and Perpetration. Furthermore, validity analysis revealed that the MMEA subscales correlated *moderately* to *highly* with communication measures and relationship satisfaction. The present study, therefore, demonstrates that MMEA is a reliable measure assessing different, but correlated, forms of psychological abuse within the Italian context.

Key words: Psychological abuse; Romantic relationships; Italian context; Psychometric properties; Multifactor measure.

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INTRODUCTION¹

A large body of research has demonstrated that intimate partner violence (IPV) is one of the most important public health problems in most countries and that it has serious personal and social consequences for those involved (Kar & García-Moreno, 2009; Menesini & Nocentini, 2008; Muñoz-Rivas, Gómez, O'Leary, & Lozano, 2007; Yoshihama, Horrocks, & Kamano, 2009). IPV includes many forms, such as physical, psychological, and sexual violence, and can be committed by one or both partners in marital, cohabiting, dating, and other intimate relationships (Murphy & Cascardi, 1999; O'Leary & Woodin, 2009).

Despite the importance of these considerations, our theoretical understanding of IPV is incomplete because most studies have often paid insufficient attention to psychological abuse and limited their investigations to violent couples or battered women. In fact, psychological abuse has often been considered a consequence of other types of violence, such as physical and sexual abuse (Arias & Pape, 1999; Astin, Lawrence, & Foy, 1993), and has been investigated in parallel with physical abuse (Murphy & O'Leary, 1989; O'Leary, 2001; Maiuro, 2001; O'Leary, Malone,

& Tyree, 1994; Russell & Hulson, 1992). Psychological abuse has only recently been considered a separate and distinct form of abuse which does not necessarily overlap with physical maltreatment and can exist without accompanying physical force (DeHart, Follingstad, & Fields, 2010; Follingstad, 2007).

Psychological abuse is therefore an important area to examine because it is a common and significant form of interpersonal violence occurring at rates ranging from 70% to 88% (Cornelius, Shorey, & Beebe, 2010; Neufeld, McNamara, & Ertl, 1999). Moreover, it not only takes place in violent relationships (Pico-Alfonso et al., 2006) or clinical samples (Simpson & Christensen, 2005) but also in the general population's intimate relationships (Lawrence, Yoon, Langer, & Ro, 2009; Taft et al., 2006).

Considerable research on dating and marital relationships has furthermore confirmed that psychological abuse has deleterious consequences for psychological and physical wellbeing, which are often more severe than those brought about by physical violence (O'Leary, 2001; Sackett & Saunders, 1999). These consequences involve destruction of self-esteem and self-concept (Loring, 1994), development of fear, a state of uncertainty, and dependency (Cercone, Beach, & Arias, 2005; Henning & Klesges, 2003). Moreover, the victim's continuous devaluations, fear of physical threats, and control and social isolation often give rise to anxiety and/or depressive symptoms (Taft et al., 2006), and to more serious psychological problems, such as post-traumatic stress disorder (Arias & Pape, 1999; Street & Arias, 2001). Finally, these negative consequences may affect relationship satisfaction (Kaura & Allen, 2004; Kaura & Lohman, 2007) and the intimacy and stability of the relationship itself (Katz, Arias, & Beach, 2000).

Despite studies suggesting the strong negative impact of psychological abuse on individual and relationship outcomes, research examining this phenomenon has been limited by difficulties in defining and measuring this construct. More specifically, there is no universally accepted definition of psychological abuse nor is there consensus on what constitutes this phenomenon (Follingstad, 2007; Schumacher, Slep, & Heyman, 2001). Moreover, the terms emotional, psychological, or verbal abuse and psychological violence tend to be used interchangeably to refer to non-physical aggressive interactions in intimate relationships (Loring, 1994; Maiuro, 2001; Marshall, 1996; Outlaw, 2009; Tolman, 1989). Given that the construct of psychological abuse includes several aggressive behaviors such as name-calling, verbal attacks, insults, humiliation, and avoidance, some authors suggested that psychological abuse may overlap conceptually with negative communication (Ro & Lawrence, 2007). Other researchers, instead, define psychological abuse as a variety of behaviors including dominance, control, isolation, criticism, withholding emotional support or nurturance, and threats directed at the partner's sense of self, which cause a systematic destruction of self-esteem or sense of safety (Follingstad & DeHart, 2000; Katz & Arias, 1999; Marshall, 1999; Murphy & Cascardi, 1999; Murphy & Hoover, 1999; Tolman, 1999). These definitions have ranged from broad behavioral categories to more distinct behavioral dimensions. For example, Loring (1994) divided psychological abuse into *overt* and *covert behaviors*. Overt behaviors include name-calling, limitation of resources, coercion, and yelling while covert behaviors consist of discounting, negation, labelling, and accusation. Marshall (1994, 1996) added *obvious* and *subtle acts* to overt behaviors, referring to verbal aggression, control and dominance, and behaviors that are difficult to identify by the victims and outsiders, respectively. He also described several distinct clusters of behaviors, such as isolation, dominance, control, withdrawal, and criticism. Tolman (1989, 1999), instead, separated psychological

maltreatment into two dimensions: 1) *dominance-isolation*, which includes behaviors that cause isolation, subservience, and submission and 2) *emotional verbal abuse*, which refers to verbal attacks and withholding emotional resources.

In a move toward increased specificity, Maiuro (2001) included four dimensions of psychologically abusive behaviors: *denigrating* (yelling, ridiculing, name calling), *passive-aggressive withholding* (avoidance, withdrawal, silence), *threatening* (physical threats directed to the partner or to other persons), and *restricting freedom* (isolation from family and friends, stalking). Finally, following a systematic review of the different models that have conceptualized psychological abuse over the years, Murphy and Hoover (1999) proposed a four-factor model comprising *Restrictive Engulfment* (isolation from family and friends, jealousy and possessiveness), *Denigration* (humiliation, name calling, verbal attack), *Hostile Withdrawal* (withholding emotional contact, acting distant), and *Dominance/Intimidation* (threats to person or property).

The variety of definitions and multiple models of psychological abuse is also reflected in the different self-report instruments used to quantify this construct. The most commonly used instrument is the Conflict Tactic Scale (CTS; Straus, 1979; CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996), which assesses victimization and perpetration in psychological and physical aggression, within dating, marital, or cohabiting relationships. Although it is also a valid and reliable self-report instrument for non-clinical samples, it only contains six items pertaining to revealed psychological aggression which is defined as “the use of verbal and nonverbal acts which symbolically hurt the other, or the use of threat to hurt the other” (Straus, 1979, p. 77). The CTS therefore measures psychological abuse as a single, unidimensional construct, characterized by aggressive acts which are mostly verbal in nature and distinct from physical and sexual violence. However, this measure does not identify the multifaceted nature of this phenomenon.

The Psychological Maltreatment of Women Inventory (PMWI; Tolman, 1989, 1999) is instead a self-report measure which assesses psychological abuse as a bidimensional construct. It comprises 58 items and measures both Dominance/Isolation and Emotional/Verbal dimensions. Although it benefits from a unidimensional to bidimensional view of psychological abuse, the PMWI contains items describing highly coercive behaviors and is used in samples of battered women. Therefore it does not appear to be a valid instrument for measuring aggressive behaviors in normative samples and in both sexes. Most research, in fact, suggests that males and females experience similar levels of psychological abuse (Archer, 2000; Goldstein, Chesir-Teran, & McFaul, 2008; Pimlatt-Kubiak & Cortina, 2003) and, consequently, that females are not the sole victims and males are not the sole perpetrators (Harned, 2001; Hines & Malley-Morrison, 2001; Mattson, O’Farrell, Monson, Panuzio, & Taft, 2010). Indeed, some studies have found that females perpetrated more psychological aggression against their male partners than males toward their female partners (Hines & Saudino, 2003; Perry & Fromuth, 2005).

Other measures present similar limitations because they have been designed to assess a broad range of abusive behaviors, rather than psychological abuse specifically, and only for use with battered women or clinical samples. These include the Index of Spouse Abuse (ISA; Hudson & McIntosh, 1981), Spouse-Specific Aggression (SSAG; O’Leary & Curley, 1986), Abusive Behavior Inventory (ABI; Shepard & Campbell, 1992), and the Measurement of Wife Abuse (MWA; Rodenburg & Fantuzzo, 1993).

Unlike the aforementioned measures which defined psychological abuse as a unidimensional or bidimensional construct and were designed for clinical samples, the Multidimensional

Measure of Emotional Abuse (MMEA; Murphy & Hoover, 1999; Murphy, Hoover, & Taft, 1999) is a self-report measure identifying the multifaceted nature of psychological abuse designed for use with both normative samples and college students who are currently involved in a heterosexual dating relationship. Thus the MMEA is a useful instrument as its design allows to overcome some of the limitations of the other instruments.

In the present study we therefore aimed to provide a significant contribution for the advancement of psychological abuse research via the Italian adaptation of the MMEA.

THE MULTIDIMENSIONAL MEASURE OF EMOTIONAL ABUSE (MMEA)

The MMEA (Murphy & Hoover, 1999; Murphy et al., 1999) is a self-report scale that was developed through a systematic review of the literature and clinical and qualitative studies on psychological abuse in marital and dating relationships (Murphy & Cascardi, 1999). With regard to the various aforementioned psychological abuse models and measures, the MMEA presents a conceptual shift as it moves from an evaluation of psychological abuse as a unidimensional construct to one that is multidimensional, thereby allowing for measurement of the most significant dimensions of psychological abuse.

The original measure comprised 54 items that were selected from several theoretical sources and existing measures to represent the domain of psychological abuse. Furthermore, several items were rewritten or generated *ex novo* so that they would also apply to dating relationships (Murphy & Hoover, 1999). For example, items related to economic abuse were excluded because most dating and younger couples maintain separate finances, and items merely assessing male power and dominance were excluded because they were limited to the behavior of just one gender. Finally, items measuring minimization of physical abuse were also eliminated because they were only relevant to physically violent relationships.

The final version of the MMEA contains 28 items that were selected on the basis of empirical criteria related to subscale reliability and discrimination of subscale content to assess four forms of psychological abuse, that were created on a rational, *a priori* basis (Nunally, 1978). The measure consists of four sets of seven items measuring the main dimensions of psychological abuse. These dimensions are: 1) Restrictive Engulfment (items 1-7), which includes coercive acts or behaviors that isolate, restrict, monitor, and control the partner's activities and social contacts, or represent displays of jealousy or possessiveness, that increase the partner's dependency and availability (e.g., item 3, "Tried to stop you/your partner from seeing certain friends or family members"); 2) Denigration (items 8-14), which comprises actions or verbal attacks that reduce the partner's self-esteem, through denigration and humiliation (e.g., item 12, "Called you/your partner a loser, failure, or similar term"); 3) Hostile Withdrawal (items 15-21), which consists of behaviors that are intended to punish the partner or increase anxiety or insecurity about the relationship, such as cold and punitive avoidance during conflict, withholding emotional contact and availability (e.g., item 21, "Intentionally avoided you/your partner during a conflict or disagreement"); 4) Dominance/Intimidation (items 22-28), which includes behaviors that produce fear or submission through the use of aggression, such as threats, property destruction, and intense verbal aggression (e.g., item 26, "Threw, smashed, hit, or kicked something in front of you/your partner").

Participants are asked to report how often they, and their relationship partners or ex-partners, have engaged in the abusive behaviors within the past six, or four, or three months, on a 7-point frequency scale (0 = *never*; 1 = *once*; 2 = *twice*; 3 = *3-5 times*; 4 = *6-10 times*; 5 = *11-20 times*; 6 = *more than 20 times*). Scores for the four subscales are obtained by summing the response categories selected by the participants. Scores range from 0 to 42 for each subscale.

Several scoring methods were used in various studies depending on their sample and research question (Panuzio, Taft, Black, Koenen, & Murphy, 2007; Taft, Murphy, King, Dedeyn, & Musser, 2005). For example, given that four subscales tend to be moderately to highly intercorrelated, some research questions may be best addressed using a total abuse score for overall victimization and perpetration by combining all 28 items, in addition to the subscale scores. So, the total score for victimization and perpetration may range from 0 to 168.

Psychometrically, the MMEA has presented solid factor structures (for Victimization and Perpetration), and the four factors have accounted cumulatively for 55% of total variance. Furthermore, the subscales for MMEA Victimization and Perpetration reports have shown significant and positive relationships (Murphy et al., 1999). Specifically, Restrictive Engulfment was positively correlated with Denigration ($r = .35$ and $r = .65$ for Victimization and Perpetration reports, respectively), Hostile Withdrawal ($r = .42$ and $r = .59$ for Victimization and Perpetration reports, respectively), and Dominance/Intimidation ($r = .38$ and $r = .54$ for Victimization and Perpetration reports, respectively). Denigration was positively correlated with Hostile Withdrawal ($r = .37$ and $r = .68$ for Victimization and Perpetration reports, respectively) and Dominance/Intimidation ($r = .78$ and $r = .67$ for Victimization and Perpetration reports, respectively). Finally, Hostile Withdrawal was positively correlated with Dominance/Intimidation ($r = .52$ and $r = .32$ for Victimization and Perpetration reports, respectively).

The MMEA subscales for both Victimization and Perpetration reports also showed good reliability indices. Specifically, Cronbach's alpha for Victimization and Perpetration, respectively, in the sample of college students were .84 and .85 for Restrictive Engulfment, .88 and .91 for Hostile Withdrawal, .89 and .92 for Denigration, and .83 and .91 for Dominance/Intimidation (Murphy & Hoover, 1999; Murphy et al., 1999). Moreover, Cronbach's alpha in a sample of married couples ranged from .68 to .92 for husbands and from .52 to .91 for wives for Victimization, and from .63 to .92 for husbands and from .55 to .74 for wives for Perpetration (Ro & Lawrence, 2007). Internal consistency was also tested in a sample of aggressive men in treatment, with Cronbach's alpha ranging from .79 to .94 (Taft, Murphy, King, Musser, & DeDeyn, 2003; Taft et al., 2005). Finally, the four dimensions showed moderate and high intercorrelations, with r -values ranging from .32 to .78 for Victimization and from .52 to .68 for Perpetration (Murphy et al., 1999).

In terms of validity, the MMEA subscales were found to display differential associations with variables such as physical violence, attachment patterns, and interpersonal problems, supporting their construct validity as distinct but correlated forms of abuse (Murphy & Hoover, 1999; Murphy et al., 1999). Specifically, Denigration and Dominance/Intimidation had moderate to high associations with physical aggression (r -values ranging from .41 to .75 for Victimization and from .51 to .67 for Perpetration); and moderate associations with attachment insecurity (r -values ranging from .24 to .26 for Perpetration); Restrictive Engulfment was highly correlated with anxious and insecure attachment and a compulsive need for nurturance (r -values ranging from .33 to .52 for Perpetration) but had modest associations with physical aggression (r -values

ranging from .25 to .45 for Victimization and from .37 to .46 for Perpetration). Finally, Hostile Withdrawal was moderately associated with attachment anxiety ($r = .28$ for Perpetration) and had low to moderate correlations with physical violence (r -values ranging from .35 to .46 for Victimization, and from .24 to .29 for Perpetration). With respect to interpersonal problems, all the MMEA subscales appear to reflect a range of interpersonal dispositions that include being cold, vindictive, domineering, and intrusive (r -values ranging from .25 to .41 for Perpetration) and none of the four subscales were associated with non-assertive and nurturing interpersonal dispositions (Murphy & Hoover, 1999; Murphy et al., 1999).

In addition, the MMEA was significantly and moderately correlated with other outcome measures, such as marital satisfaction ($r = -.42$ for the total victimization score) and depression ($r = .45$ for the total victimization score), demonstrating good external validity (Ro & Lawrence, 2007).

With respect to social desirability, for the Victimization report only the Hostile Withdrawal subscale had modest correlations with Impression Management ($r = -.30$) and self-deception ($r = -.17$). For Perpetration, all the four subscales had modest associations with Impression Management (r -values ranging from $-.24$ to $-.26$), and only the Restrictive Engulfment subscale had a moderate correlation with self-deception ($r = -.23$), demonstrating that response bias had a limited influence on responses (Murphy & Hoover, 1999; Murphy et al., 1999).

Compared to other psychological abuse measures, such as the Conflict Tactic Scale-2-Version-Psychological Aggression (CTS2-PS; Straus et al., 1996), the MMEA presented a moderate level of convergent validity ($r = .54$) indicating that they reflect similar constructs of psychological abuse, yet not the same (Ro & Lawrence, 2007).

Thus, given its solid structure, good psychometric characteristics, agility, and easy administration procedure, the MMEA appears to be a promising measure for psychological research, especially when studying normative samples such as college students. This measure also represents efforts to shift from a unidimensional to a multidimensional approach of conceptualizing psychological abuse, that allows for the assessment of different destructive relationship behaviors. Assessment issues, however, remain a critical priority for advances in psychological research, especially within the Italian context.

AIMS AND HYPOTHESES

Given these considerations, the present study aimed to contribute to the adaptation of the MMEA (Murphy & Hoover, 1999; Murphy et al., 1999) in the Italian context.

More specifically, the aims of this study were to verify in an Italian sample: 1) the factor structure of the MMEA for Victimization and Perpetration reports via confirmatory factor analyses. We expected that both Victimization and Perpetration reports would confirm the same factor structure according to the original four-factor model identified by the authors (see Figure 1); 2) the reliability of the subscales for both Victimization and Perpetration reports. We expect that all the subscales, in both Victimization and Perpetration reports, would show satisfactory internal consistency; 3) the discriminant validity of the MMEA subscales by analyzing their relationships with communication measures. We expect that the four subscales of both the Victimization and Perpetration reports would be significantly and moderately correlated with communication styles. Specifically, we expect higher correlations for the Denigration and Hostile Withdrawal subscales,

which comprise more items reflecting negative communication; and, finally, 4) the predictive validity of the MMEA subscales, by comparing these subscales with a relationship satisfaction measure that has been consistently associated with psychological abuse (Kaura & Allen, 2004; Kaura & Lohman, 2007). We expect negative and significant correlations between the four dimensions of psychological abuse and relationship satisfaction for both Victimization and Perpetration reports.

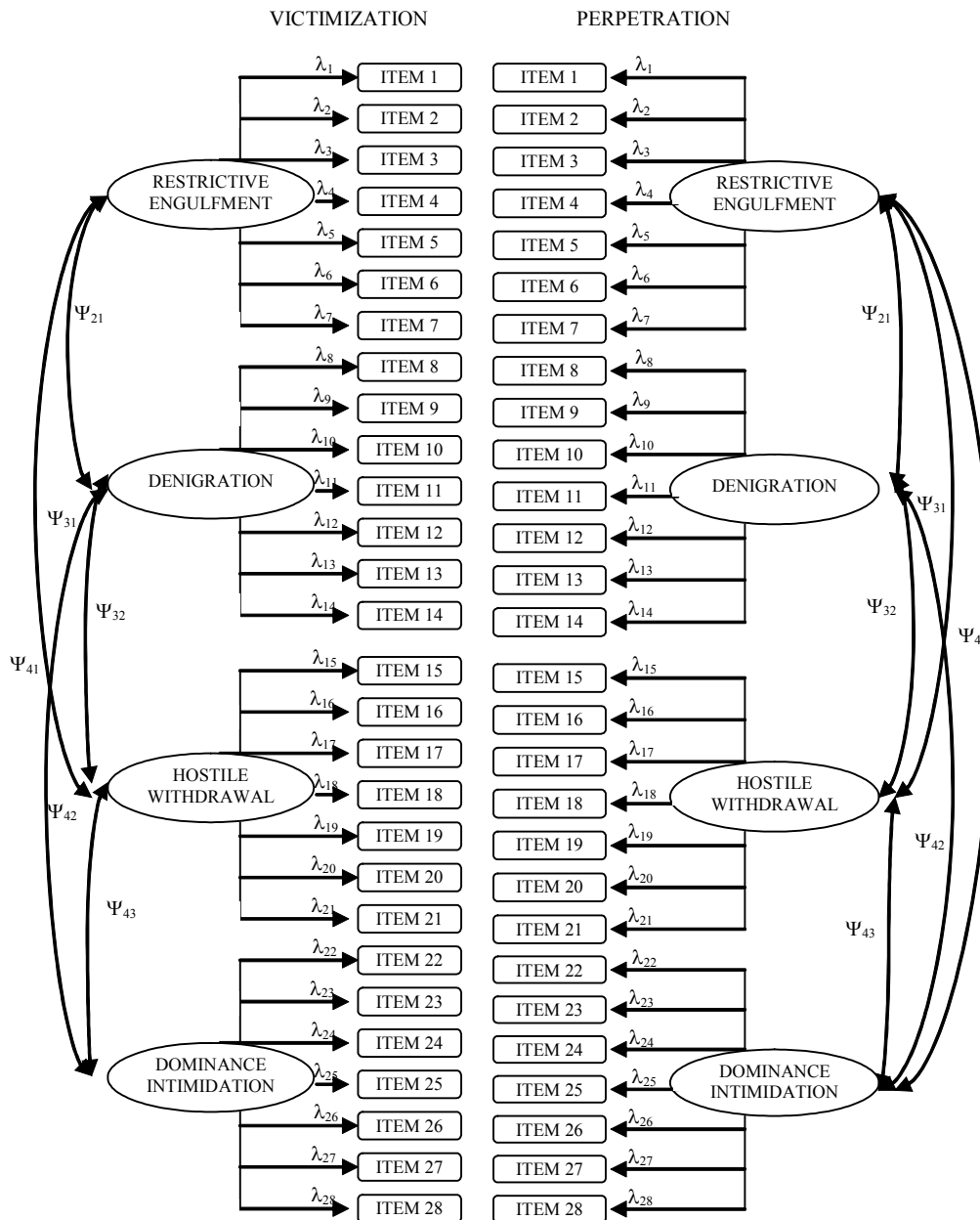


FIGURE 1
 Factor structure of MMEA Victimization and Perpetration reports.

METHOD

Translation of the MMEA

The MMEA was translated into Italian using the back-translation procedure. Two native English bilingual translators worked autonomously: the first translated the MMEA into Italian and the second translated the Italian translation back into English. The two translators then compared the two translations and found that there were no significant incongruities between them. Moreover, before administering the Italian version of the MMEA to participants, a pilot study was conducted on a small number of participants ($N = 52$) to identify potential problems resulting from language translation or item ambiguity. This pilot study did not reveal any salient problems, and so the final version of the instrument (see Appendix) was administered.

Participants

The initial sample consisted of 525 Italian college students (mean age = 22.5; $SD = 2.1$, range 18-31). Following the recommendations of the MMEA authors, the requirements for participation in the study were that respondents be currently involved in a heterosexual romantic relationship of at least six-months' duration. Approximately one fifth (20.6%) of these participants did not answer the filter question concerning their current romantic relationship so the present study sample was reduced to those respondents who reported being in a current romantic relationship for at least six months. Therefore, the final sample included 417 Italian college students (188 males and 229 females) who were recruited from several University faculties (Psychology, Biology, Mathematics, and Information Technology) located in two cities in central Italy (Florence and Siena). Student age ranged from 18 to 31 years ($M = 21.7$ years, $SD = 3.3$). The mean male age was 23 years ($SD = 3.9$) and the mean female age was 21.3 years ($SD = 2.8$). The length of these romantic relationships varied widely, ranging from 6 months to 10 years ($M = 2.5$ years, $SD = 2.2$).

With respect to the relationship status, 93.5% of participants were dating and not living with their partner, 4.6% were cohabiting, and 1.9% were married. The majority of participants were from Central Italy (75.8%), with the remainder being from Southern (18%) or Northern (6.2%) Italy. Finally, all participants came from families of middle or high socioeconomic status and more than 62% of their parents had a high school diploma or university degree.

Measures

The Italian version of the MMEA for Victimization and Perpetration reports was administered to all participants. Participants also completed the Conjugal Communication Questionnaire (Cusinato & Cristante, 1999) comprising 56 items on the way in which the respondent talks with, discusses, and communicates with his or her partner, and revealing four communication styles. They are: *Efficacy*, referring to clear, effective communication, and positive dialogue based on self-disclosure between the partners; *Avoidance*, which describes the propensity of one

partner to avoid and interrupt the conversation; *Dismissal*, which involves a voluntary break in communication on important topics through the use of arrogance, hostility, charges, and negative reinforcements, and *Manipulation*, which comprises communicative exchanges based on the use of intimidation, impositions, ultimatums, and threats. Participants rated each item on a 5-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The four factors accounted cumulatively for 55% of the total variance. Correlations among the four subscales were significant ($p < .001$). Specifically, the Efficacy subscale was negatively correlated with the Avoidance ($r = -.55$), Dismissal ($r = -.47$), and Manipulation ($r = -.42$) subscales. The Avoidance subscale was positively correlated with the Dismissal ($r = .61$) and Manipulation ($r = .48$) subscales. Finally, the Dismissal subscale was positively correlated with the Manipulation subscale ($r = .73$).

Regarding reliability, Cronbach's alpha was .77 for Efficacy, .73 for Avoidance, .80 for Dismissal, and .79 for Manipulation (Cusinato & Cristante, 1999). In the present study, the alpha coefficients for Efficacy, Avoidance, Dismissal, and Manipulation were .83, .75, .79, and .78, respectively.

Finally, all participants responded to the Quality of Marriage Index (QMI; Norton, 1983). This measure is characterized by six items assessing overall relationship satisfaction. The items tap into a unidimensional construct of how "good" an individual evaluates his or her relationship to be. The respondents indicate their degree of agreement with five of the items on a scale ranging from 1 (*very strongly disagree*) to 7 (*very strongly agree*) and with one item on a scale ranging from 1 (*very unhappy*) to 10 (*perfectly happy*). Higher scores indicate greater relationship satisfaction. QMI scores are highly correlated with scores on the Marital Adjustment Test (Locke & Wallace, 1969) and Dyadic Adjustment Scale (Spanier, 1976), both of which are commonly used relationship quality measures (Heyman, Sayers, & Bellack, 1994). Reliability coefficients were .95 (Baxter, 1990) and .96 (Perse, Pavitt, & Burggraf, 1990). In the present study, the Cronbach's alpha was .95 for the summed scale.

For the current investigation, the wording of this scale was slightly modified so that it applied also to dating and not only to marital relationships. Numerous studies provide evidence for the validity of the QMI with dating samples. The QMI has been significantly correlated with a variety of important outcomes, including depressive symptoms, social support, and reassurance seeking (Chatav & Whisman, 2009; Katz, Anderson, & Beach, 1997; Katz, Kuffel, & Coblenz, 2002).

Procedure

Data were collected during the regular lessons in several undergraduate classes. Participants were asked if they were currently involved in a heterosexual romantic relationship of at least six months' duration. Participants were also informed that their decision to participate in the study or not would have no influence on their class grade. All questionnaires were completed during class time. The questionnaires of participants who were not involved in romantic relationships at the time of data collection or who had been involved in a romantic relationship for less than six months duration were excluded from the present study.

RESULTS

Preliminary Analyses

Preliminary analyses were conducted to assess the normality of all the MMEA Victimization and Perpetration reports items (Fox, 2008). Analyses revealed a non-normal distribution for several items, which showed asymmetry and a kurtosis greater than ± 1 for each of the MMEA reports about the self and partner (Marcoulides & Hershberger, 1997; Muthén & Kaplan, 1985). Thus, subsequent analyses were conducted using robust methods (Maximum Likelihood Estimates, MLM; Muthén & Muthén, 1998/2007), utilizing the MPLUS v. 5.21 statistical program.

Confirmatory Factor Analyses

To evaluate the adequacy of the MMEA factor structure according to the original four-factor model identified by its authors (Murphy & Hoover, 1999; Murphy et al., 1999), a series of confirmatory factor analyses were separately conducted on reports of abuse by partner (Victimization) and self (Perpetration).

The adequacy of the model was evaluated using the chi-square test. This provides an estimate of the probability that the sample distribution differs from the expected distribution based on the theoretical model. If the difference is statistically significant, a match between the data and the theoretical model is unlikely, therefore the model should be rejected. However, because this index is strongly influenced by sample size and is thus an ambiguous index of the goodness of fit of the model (Bollen, 1989; Corbetta, 1993; Primi, 2002), other widely used indices were taken into consideration. Specifically, goodness of fit was evaluated using the Comparative Fit Index (CFI; Bentler, 1990), Tucker and Lewis Index (TLI; Bentler & Bonnet, 1980; Tucker & Lewis, 1973), Root Mean Square Error Approximation (RMSEA; Browne & Cudeck, 1992; Steiger & Lind, 1980), and the Standardized Root Mean Square Residual (SRMR; Bentler, 1995).

Regarding the fit criteria for CFI and TLI, a satisfactory-fitting model is indicated by values of .90 or higher (Hu & Bentler, 1998), while values greater than .95 are regarded as optimal (Hu & Bentler, 1999). For the RMSEA fit criteria, values of less than or equal to .05 were considered optimal, and values ranging from .05 to .08 were considered acceptable (Browne & Cudeck, 1992). For the SRMR fit criteria, values of less than .05 were considered to be indicative of a well-fitting model, but some researchers suggest that SRMR values of less than .08 indicate an acceptable model fit (Hu & Bentler, 1999).

The four-factor model, for the Victimization and Perpetration reports, provided an acceptable fit to data (see Figure 2).

As is almost always the case with large sample sizes, the chi-square goodness of fit test indicated that the model deviated from a perfect fit ($p < .001$), but the other test of fit indices fell within generally accepted ranges, confirming the adequacy of the tested structure in relation to Victimization and Perpetration reports. The fit indices of the Victimization and Perpetration reports were as follows: Victimization: $\chi^2 = 494.24$, $df = 344$, $\chi^2/df = 1.44$; CFI = .92; TLI = .91;

RMSEA = .03; SRMR = .05; Perpetration: $\chi^2 = 517.42$, $df = 344$, $\chi^2/df = 1.50$; CFI = .91; TLI = .90; RMSEA = .04; SRMR = .06.

Furthermore, the analysis carried out on these models revealed significant loadings ($p < .001$) for all 28 items of the scale, in relation to reports of Victimization and Perpetration (see Figure 2). Finally, the correlations among the four factors for MMEA Victimization and Perpetration reports indicate significant and positive relationships ($p < .001$) (see Figure 2).

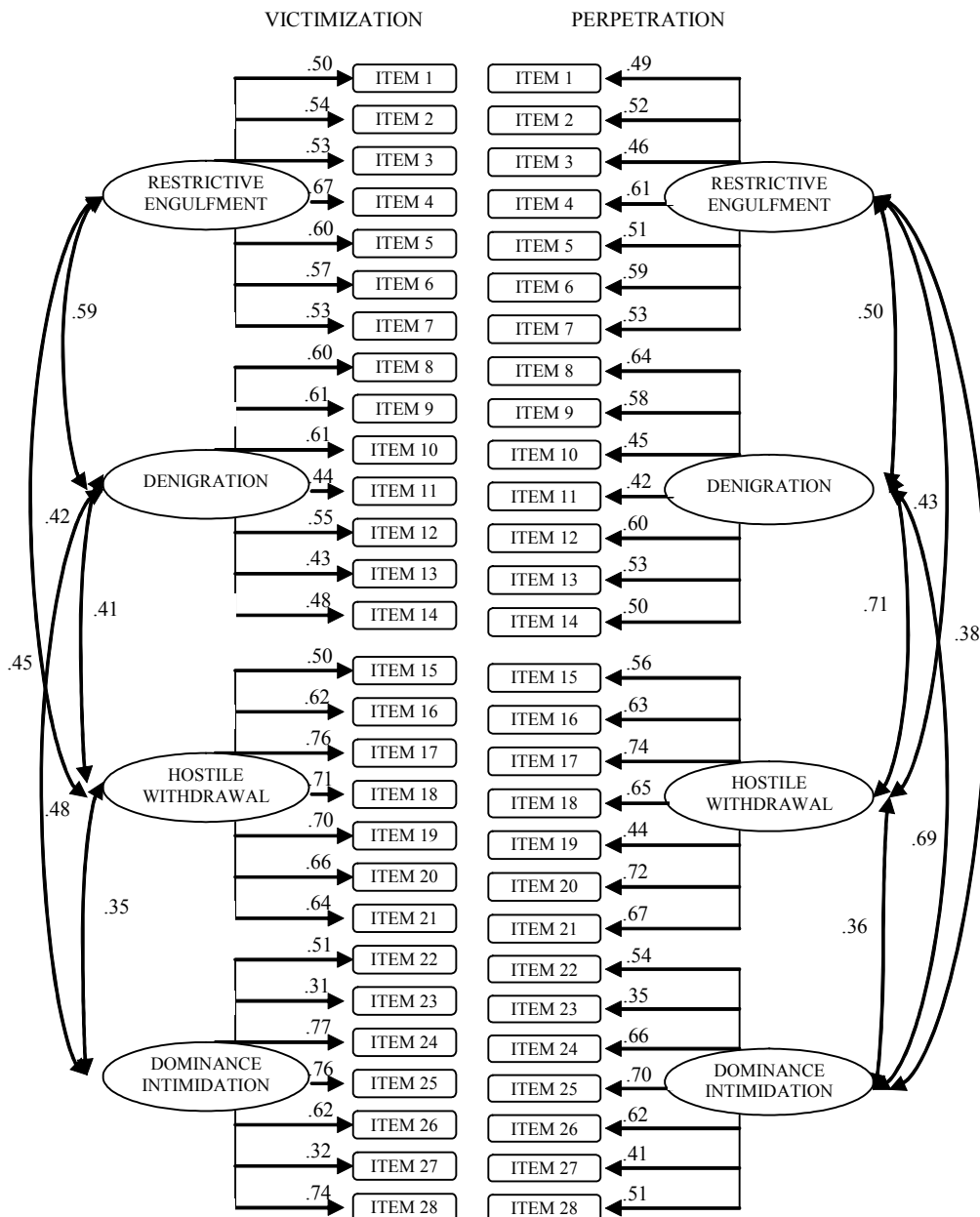


FIGURE 2
 Factor structure of MMEA Victimization and Perpetration reports, loadings and correlations.

Internal Consistency

To assess the internal consistency of the MMEA Victimization and Perpetration reports, the factor loadings and error terms, obtained from confirmatory factor analyses, through the rho index (Bagozzi, 1994), were used. For the MMEA Victimization report, the rho value was .77 for the Restrictive Engulfment dimension, .74 for the Denigration dimension, .84 for the Hostile Withdrawal dimension, and .78 for the Dominance/Intimidation dimension. For the MMEA Perpetration report, the rho value was .73 for the Restrictive Engulfment dimension, .73 for the Denigration dimension, .82 for the Hostile Withdrawal dimension, and .75 for the Dominance/Intimidation dimension.

Validity Analyses

Preliminary analyses were conducted to assess the normality of all the scales. The scores of the Conjugal Communication Questionnaire and the Quality of Marriage Index were found to be normally distributed with values ranging between +1 and -1.

However, the four subscales of the MMEA Victimization and Perpetration reports had an asymmetrical distribution. Therefore, these scores were log transformed in order to improve the normality of item distributions. Following transformation, the asymmetry values were within the range of +1 and -1 (Marcoulides & Hershberger, 1997; Muthén & Kaplan, 1985).

Table 1 presents the means, standard deviations, and the kurtosis and skewness values for the study variables.

TABLE 1
 Means, standard deviations, asymmetry, and skewness values

Variable	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
MMEA Victimization				
Restrictive Engulfment	7.08	6.49	-.48	-.71
Denigration	2.80	4.33	.58	-.71
Hostile Withdrawal	11.71	8.87	-.83	.33
Dominance/Intimidation	4.62	5.07	-.08	-.45
MMEA Perpetration				
Restrictive Engulfment	6.35	1.22	-.38	-.83
Denigration	5.18	3.23	-.30	-.95
Hostile Withdrawal	11.63	8.82	-.73	.25
Dominance/Intimidation	5.0	4.9	-.31	-.20
CCQ				
Efficacy	52.9	8.42	-.54	
Avoidance	28.9	7.69	.71	.50
Dismissal	27.53	8.20	.74	.38
Manipulation	29.94	9.25	.56	-.10
QMI				
Relationship satisfaction	33.81	9.23	-.64	-.57

Note. MMEA Victimization, Multidimensional Measure of Emotional Abuse (Abuse by partner); MMEA Perpetration, Multidimensional Measure of Emotional Abuse (Abuse by self); CCQ, Conjugal Communication Questionnaire; QMI, Quality of Marriage Index.

Discriminant Validity

Discriminant validity was examined by using the correlation analysis between the scores obtained for the four MMEA Victimization and Perpetration subscales (Restrictive Engulfment, Denigration, Hostile Withdrawal, and Dominance/Intimidation) and the four dimensions of the Conjugal Communication Questionnaire (Efficacy, Avoidance, Dismissal, and Manipulation).

The MMEA subscales (for both Victimization and Perpetration) were generally significantly and moderately correlated in the expected directions with positive and negative communication styles (see Table 2 and 3). More specifically, Hostile Withdrawal and Denigration were moderately and negatively correlated with the positive communication styles, based on efficacy. Furthermore, Hostile Withdrawal had the highest correlations with all negative communication strategies, based on avoidance, dismissal, and manipulation, while Dominance/ Intimidation only showed significant correlations with two negative conflict styles, based on dismissal and manipulation.

TABLE 2
MMEA Victimization subscale correlations with the Conjugal Communication Questionnaire

		MMEA Victimization			
		Restrictive Engulfment	Denigration	Hostile Withdrawal	Dominance/ Intimidation
CCQ	Efficacy	-.23*	-.28**	-.36**	-.16
	Avoidance	.30**	.27*	.32**	.14
	Dismissal	.32**	.43**	.52**	.41**
	Manipulation	.29**	.41**	.44**	.36**

Note. CCQ, Conjugal Communication Questionnaire; MMEA Victimization, Multidimensional Measure of Emotional Abuse (Abuse by partner).
* $p < .05$; ** $p < .01$.

TABLE 3
MMEA Perpetration subscale correlations with the Conjugal Communication Questionnaire

		MMEA Perpetration			
		Restrictive Engulfment	Denigration	Hostile Withdrawal	Dominance/ Intimidation
CCQ	Efficacy	-.21*	-.31**	-.25*	-.17
	Avoidance	.22*	.32**	.34**	.20*
	Dismissal	.31**	.34**	.33**	.34**
	Manipulation	.33**	.31**	.29**	.32**

Note. CCQ, Conjugal Communication Questionnaire; MMEA Perpetration, Multidimensional Measure of Emotional Abuse (Abuse by self).
* $p < .05$; ** $p < .01$.

Predictive Validity

To assess the external validity of the MMEA, each of the four subscales for both victimization and perpetration reports was correlated with the conceptually distinct but related construct of relationship satisfaction. Results are presented in Table 4. Analyses revealed negative and significant ($p < .001$) associations between the four dimensions of psychological abuse and relationship satisfaction as reported on the QMI for both Victimization and Perpetration reports.

TABLE 4
MMEA Victimization and Perpetration Subscale Correlations with Quality of Marriage Index

	MMEA Victimization				MMEA Perpetration			
	RE	DE	HW	D/I	RE	DE	HW	D/I
QMI	-.48**	-.46**	-.51**	-.44**	-.43**	-.44**	-.39**	-.42**

Note. QMI, Quality of Marriage Index; MMEA Victimization, Multidimensional Measure of Emotional Abuse (Abuse by partner); MMEA Perpetration, Multidimensional Measure of Emotional Abuse (Abuse by self). RE = Restrictive Engulfment; DE = Denigration; HW = Hostile Withdrawal; D/I = Dominance/ Intimidation.

** $p < .01$.

DISCUSSION AND CONCLUSIONS

Given the lack of instruments for assessing psychological abuse in romantic relationships as a multifactor construct within the Italian context, the aim of the present study was to contribute to the psychological abuse research and literature through the Italian adaptation of the MMEA (Murphy & Hoover, 1999; Murphy et al., 1999). Moreover, the study intended to evaluate the psychometric properties of the MMEA by analyzing the reliability of the four subscales for Victimization and Perpetration reports and to examine its divergent and predictive validity by comparing the scores of the four subscales with communication and relationship satisfaction measures.

Our results confirmed the original four-factor structure of the MMEA for both Victimization and Perpetration reports, supporting the presence of these four distinct but correlated latent constructs assessing several forms of psychological abuse. Therefore, the MMEA also appears to be a good multifactorial measure of psychological abuse within the Italian context and allows for the assessment of not only abuse by the partner, but also abuse by the self.

Moreover, the psychometric properties of the MMEA are promising. The measure showed satisfactory internal consistency for each of the psychological abuse constructs: Restrictive Engulfment, Denigration, Hostile Withdrawal, and Dominance/Intimidation, both in Victimization and Perpetration reports, confirming the results obtained by the authors in other contexts (Murphy & Hoover, 1999; Murphy et al., 1999; Ro & Lawrence, 2007; Taft et al., 2005; Taft et al., 2003).

For the discriminant analyses, the MMEA subscales generally correlated significantly with communication measures. As expected, negative correlations were found between the different types of psychological abuse and the efficacy communication strategies and positive corre-

lations were found between psychological abuse and negative communication styles, based on manipulation, avoidance, and dismissal.

The pattern of Dominance/Intimidation involving fear, submission, and threats was strongly associated with dismissal behavior which involves a voluntary break in communication on important topics, through the use of arrogance, hostility and charges, and with manipulation pattern, which is characterized by intimidations, impositions and ultimatums, for Victimization reports, and also showed a moderate correlation with communication styles based on avoidance, for Perpetration reports. The Denigration dimension (for Victimization and Perpetration), based on humiliating and degrading direct attack, showed moderate to strong associations with all negative communication strategies, involving avoidance, dismissal behavior, and manipulation. Restrictive Engulfment, which involves controlling and monitoring the partner's activities and jealousy and possessiveness, had similar associations with all of the three negative communication strategies (for Victimization and Perpetration reports). Finally, Hostile Withdrawal, which involves avoidance and withdrawal, had stronger correlations with dismissal, for Victimization, and moderate to strong levels of association with avoidance and dismissal, for Perpetration. In conclusion, consistent with other investigations (Ro & Lawrence, 2007), the present results indicate that the psychological abuse and negative communication measures display moderate construct overlap, but that this redundancy is especially present in the Denigration and Hostile Withdrawal subscales, dimensions that comprise more items reflecting negative communication.

Finally the significant, negative correlations between all of the MMEA subscales and the relationship satisfaction measures indicate that the MMEA has reasonable predictive validity. The results also suggest that there are important differences among the psychological abuse dimensions. The highest negative correlations with partner satisfaction were found for Hostile Withdrawal on the Victimization report, which involves avoidance, cold behavior during a conflict, withholding of contact, and for Denigration on the Perpetration report which is characterized by humiliating and degrading the partner. This data strongly supports the notion that psychological abuse in a relationship is negatively related to couple satisfaction (Katz et al., 2002) and that partners feel less satisfied in relationships that involve psychologically abusive behaviors. It is not surprising that there might be dissatisfaction with relationships where isolation, degradation, fear, intimidation, and emotional distance are present.

Overall, the current findings suggest that the MMEA is a valuable and useful self-report instrument for measuring psychological abuse in dating relationships and normative samples as a multifactorial construct, with four distinct forms of psychological abuse. Furthermore, given that the MMEA assesses psychological abuse in the form of both Victimization and Perpetration in the same participants, it can be used to reveal the respondents' reciprocal role of victim and perpetrator. Several studies have in fact suggested that psychological abuse is highly reciprocal in intimate relationships and that a significant proportion of individuals are both recipients and perpetrators of abusive behaviors (Follingstad & Edmundson, 2010; Gray, & Foshee, 1997).

Despite the fact that the findings of the present investigation represent an important first step in examining psychological abuse in the Italian context, further work is necessary to extend the multifactor model of the MMEA in other samples to confirm its factor structure and its psychometric characteristics. The MMEA is an instrument that has been created to evaluate levels of psychological abuse in dating relationships and for this reason the present study sample comprised college students, most of whom were in a long-term romantic relationship, but who were

not living with the partner. Although this is an important population sample, the results may not be generally applicable to romantic relationships and further studies on a range of intimate relationships would assist to broaden our understanding of the phenomenon of psychological abuse across diverse types of intimate relationships. Studies employing diverse samples would allow more thorough investigations of differences due to important factors associated with psychological abuse including relationship status (married, cohabiting, dating), relationship duration, age, and race. Additionally, future research should include clinical samples, such as couples in family therapy, violent couples, men in treatment, and battered women to further evaluate the results of previous studies which have employed the MMEA (Murphy, Taft & Eckhardt, 2007; Taft et al., 2005; Taft et al., 2003).

NOTE

1. The research was supported by the Monte dei Paschi di Siena Foundation in 2009 (ref. n. 37877).

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APPENDIX

Multidimensional Measure of Emotional Abuse (Murphy & Hoover, 1999; Murphy et al., 1999):
Italian Version

Istruzioni. Le seguenti affermazioni riguardano la relazione che hai con il tuo partner o hai avuto con un ex-partner. Ti preghiamo di indicare quanto spesso questi comportamenti sono accaduti *negli ultimi sei mesi*. Per favore, cerchi un numero utilizzando la scala sottostante per indicare quanto spesso tu e il tuo partner avete messo in atto i comportamenti descritti dalle seguenti affermazioni. Segna nella casella relativa a te stesso (“Io”) il numero corrispondente alla frequenza con cui tu hai messo in atto tali comportamenti e nella casella relativa al tuo partner (“Il mio partner”) il numero corrispondente alla frequenza con cui il tuo partner ha utilizzato tali comportamenti. Se tu o il tuo partner non avete messo in atto certi comportamenti negli scorsi sei mesi, ma invece ciò è accaduto prima, ti preghiamo di cerchiare il numero “7.” [Instructions. The following questions ask about the relationship with your partner or ex-partner. Please report how often each of these behaviors has occurred *in the last six months*. Please circle a number using the scale below to indicate how often you have engaged in each of the following behaviors, and a number to indicate how often your partner has engaged in each of the following behaviors. Indicate how many times you have done this where it says “you,” and how many times your partner has done this where it says “your partner.” If you or your partner did not exhibit one of these conducts in the past six months, but it has happened before that, circle “7”].

Quanto spesso è accaduto? [How often did this happen?]

Response scale: 1 = *Una volta [Once]*; 2 = *Due volte [Twice]*; 3 = *3-5 volte [3-5 times]*; 4 = *6-10 volte [6-10 times]*; 5 = *11-20 volte [11-20 times]*; 6 = *Più di 20 volte [More than 20 times]*; 7 = *Mai negli ultimi sei mesi, ma è successo prima [Never in the past six months, but has happened before]*; 0 = *Non è mai successo [This has never happened]*.

1 – Chiedere in un modo sospettoso all’altro dove sia stato o con chi [Asked the other person where they had been or who they were with in a suspicious manner]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
2 – Rovistare di nascosto negli effetti personali dell’altro [Secretly searched through the other person’s belongings]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
3 – Cercare di impedire all’altro di vedere alcuni amici o membri della famiglia [Tried to stop the other person from seeing certain friends or family members]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
4 – Lamentarsi che l’altro trascorre troppo tempo con gli amici [Complained that the other person spends too much time with friends]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	

(appendix continues)

Appendix (continued)

5 – Arrabbiarsi perché l'altro è uscito senza dirlo [Got angry because the other person went somewhere without telling him/her]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
6 – Far sentire l'altro colpevole per non passare abbastanza tempo insieme [Tried to make the other person feel guilty for not spending enough time together]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
7 – Controllare l'altro chiedendo ad amici o ai parenti dove sia stato o con chi [Checked up on the other person by asking friends or relatives where they were or who they were with]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
8 – Dire o sottintendere che l'altro sia uno stupido [Said or implied that the other person was stupid]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
9 – Dire all'altro che non vale niente [Called the other person worthless]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
10 – Dire all'altro che è brutto [Called the other person ugly]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
11 – Criticare l'aspetto fisico dell'altro [Criticized the other person's appearance]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
12 – Chiamare l'altro perdente, fallito o con altri termini simili [Called the other person a loser, failure, or similar term]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
13 – Sminuire l'altro davanti ad altri [Belittled the other person in front of other people]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
14 – Dire che qualcun altro sarebbe potuto essere un miglior partner (miglior consorte, fidanzato, fidanzata) [Said that someone else would be a better partner (better spouse, better girlfriend or boyfriend)]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
15 – Essere talmente arrabbiato da non riuscire o da non essere propenso a parlare [Became so angry that they were unable or unwilling to talk]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
16 – Essere freddo o distante nei momenti di rabbia [Acted cold or distant when angry]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
17 – Rifiutarsi di discutere di un problema [Refused to have any discussion of a problem]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	

(appendix continues)

Appendix (continued)

18 – Cambiare argomento di proposito quando l'altro cerca di discutere di un problema [Changed the subject on purpose when the other person was trying to discuss a problem]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
19 – Rifiutarsi di riconoscere un problema che l'altro sente importante [Refused to acknowledge a problem that the other person felt was important]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
20 – Fare il broncio o rifiutarsi di parlare di un argomento [Sulked or refused to talk about an issue]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
21 – Evitare intenzionalmente l'altro durante un conflitto o un disaccordo [Intentionally avoided the other person during a conflict or disagreement]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
22 – Arrabbiarsi al punto tale da spaventare l'altro [Became angry enough to frighten the other person]									
Io	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
23 – Dire in faccia all'altro le proprie ragioni per rimarcare la propria posizione con maggiore fermezza [Put his/her face right in front of the other person's face to make a point more forcefully]									
Io	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
24 – Minacciare di colpire l'altro [Threatened to hit the other person]									
Io	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
25 – Minacciare di lanciare qualcosa verso l'altro [Threatened to throw something at the other person]									
Io	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
26 – Lanciare, fracassare, colpire o calciare qualcosa di fronte all'altro [Threw, smashed, hit, or kicked something in front of the other person]									
Io	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
27 – Guidare in maniera avventata tanto da spaventare l'altro [Drove recklessly to frighten the other person]									
Io	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	
28 – Alzarsi in piedi o stare addosso all'altro durante un conflitto o un disaccordo [Stood or hovered over the other person during a conflict or disagreement]									
Io [I]	1	2	3	4	5	6	7	0	
Il mio partner [My partner]	1	2	3	4	5	6	7	0	