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**Research article** 

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# Relationships between Trait Emotional Intelligence, mood states, and future orientation among female Italian victims of Intimate Partner Violence



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ARTICLE INFO	A B S T R A C T
Keywords: Psychology Intimate partner violence IPV Women Emotional intelligence Trait EI Mood states Future orientation	<ul> <li>Objective: Trait Emotional Intelligence (EI) has been associated with psychological outcomes in many conditions; however, it has received little attention in the field of Intimate Partner Violence (IPV). We explored the relationship between trait EI, mood states, and future orientation in a sample of Italian women victims of IPV.</li> <li>Method: We recruited 409 help-seeking women who were victims of IPV. They completed the Trait Emotional Intelligence Questionnaire, Positive Affect-Negative Affect Schedule, Long-Term Personal Direction Scale, and Achievability of Future Goals Scale.</li> <li>Results: The results showed that trait EI was associated with the future orientation of IPV victims both directly and indirectly through the mood states.</li> <li>Conclusions: Our findings suggest potential paths for developing future psychoeducation methodologies designed at improving the quality of life of women IPV victims.</li> </ul>

# 1. Introduction

Intimate partner violence (IPV) is a traumatic psychological experience that is often related to several negative mood states and victims' pessimistic perceptions of their future lives (Crane and Eckhardt, 2013; Holman and Silver, 1998; Lomranz et al., 1985). Although associations between individuals' personality characteristics, mood states, and orientation towards the future are well known (Farnia et al., 2018; Martins et al., 2010), few studies have examined these relationships among victims of IPV. To address this gap in the literature, the present study aims to determine whether IPV victims' personality characteristics and mood states are associated with their future orientation.

Empirical research (Shortt et al., 2010) has consistently shown that IPV victims experience more negative effects such as anger, hostility, sadness, and anxiety than those who have not experienced IPV (Jacobson et al., 1996; McNulty and Hellmuth, 2008). Several researchers claim that a long-standing abusive situation could lead a victim to believe there is no way to change her condition in the future (Ali and Naylor, 2013; Leiner et al., 2008; Patel et al., 2012). In fact, IPV adversely affects a victim's cognitive ability to perceive success and reinforces the conviction that no action she takes will produce a positive result (Walker, 1979). In other words, IPV can have an extreme negative impact on how women envision and plan for the future as well as their capacity to live

happily (Holman and Silver, 1998; Kilpatrick, 2004; Lomranz et al., 1985). Identifying individual differences that reduce or increase IPV victims' risk of developing negative mood states and perceptions of the future is thus crucial to informing theory-driven psychological interventions directed at women at high risk of IPV (Moreira et al., 2019).

Several studies have underlined that individuals' personality characteristics may be strong predictors of health, mood states, plans, motivations, and feelings about their future (Farnia et al., 2018; Martins et al., 2010). Some authors argue the importance of studying personality traits to better understand victims' actions because such traits likely influence the presence and expression of various unsafe behaviors (Dillon et al., 2013; Kuijpers et al., 2011; Moreira et al., 2019; Yalch and Levendosky, 2018). Indeed, research by Grucza and Goldberg (2007) confirms the predictive validity of personality characteristics for individuals' diverse behavior. Trait emotional intelligence (EI) is a significant personal resource that may promote the coping process and increase positive affectivity and future orientation (Petrides and Furnham, 2001).

Under the framework of the latest accredited model of Petrides and Furnham (2003, 2006), trait EI is considered a constellation of self-perception and dispositions correlated with emotions that principally refer to the personality sphere. Trait EI is a comprehensive model that involves characteristics of emotional intelligence; namely, self-control (e.g., emotion regulation), emotionality (e.g., perception of

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one's own and others' emotions), and sociability (e.g., social competence) as well as the dispositional dimension of well-being or self-esteem (Mikolajczak et al., 2007). According to the EI construct, people handle their emotions and recognize those of others quite differently (Petrides and Furnham, 2006). EI is particularly helpful in circumstances with social and emotional outcomes and strongly associated with health (Petrides & Furnham, 2003, 2006; Lea et al., 2019; Martins et al., 2010).

To rebuke criticism of the trait EI model as redundant compared to the classification of personality traits, scholars have highlighted its incremental validity as a predictor of attitudes, coping strategies, and the typology of different mental disorders (Petrides et al., 2007; Mikolajczak et al., 2006). In fact, people with high trait EI manage emotional distress better than people with low trait EI (Laborde et al., 2011, 2014; Lea et al., 2019), and they are less susceptible to depression (Kircaburun et al., 2019), more resilient to failure, and less likely to perceive events as threatening (Agnoli et al., 2019; Mikolajczak et al., 2007; Pittarello et al., 2017). People with high levels of EI (in terms of understanding, expressing, and managing one's own emotions and the emotions of others) are able to use emotions to solve problems, motivate themselves, and reach chosen objectives (Batool et al., 2014).

Whereas positive mood states reflect the degree to which people usually feel ready, active, and excited, negative mood states indicate the extent to which they feel unhappy (Watson et al., 1988). Low negative mood states reveal a state of serenity and calmness whereas high negative mood states are typical of anxiety (Watson et al., 1988; Hoerger et al., 2012; Marroquín and Nolen-Hoeksema, 2015; Miranda et al., 2008; Yuan and Kring, 2009). Individuals with negative mood states estimate negative outcomes to be more likely in the future, whether the negative mood is experientially produced (DeSteno et al., 2000) or an element of their depressive state (Marroquín and Nolen-Hoeksema, 2015). Individuals with high trait EI are skilled at understanding what produces negative mood states; as such, they are less likely to demonstrate them and exhibit more useful mood management behavior (Mikolajczak et al., 2007; Rubaltelli and Pittarello, 2018; Ciarrochi et al., 2001; Petrides and Furnham, 2003; Sevdalis et al., 2007). People with trait predispositions to give close attention to their emotions present stronger positive mood states and estimate the likelihood of future events with mood congruence (Gasper and Clore, 2000; Gohm, 2003).

However, few studies have examined the relationships between personality characteristics, mood states, and future orientation among female victims of IPV. In light of previous findings, it is reasonable to suppose that female IPV victims with high levels of trait EI might be able to react to violent traumatic experiences in a way that increases a positive mood states and optimistic feelings towards their future.

# 1.1. Current study

This study investigates through a cross-sectional design whether trait EI is associated with positive/negative mood states and future orientation in a sample of female Italian victims of IPV.

Based on the above review, a hypothetical model (Figure 1) was obtained.

Specifically, we propose the following hypotheses:

**Hypothesis 1 (H1)**. There is a positive relationship between Trait EI and future orientation.

**Hypothesis 2a (H2a).** There is a positive relationship between Trait EI and positive mood states (PA).

**Hypothesis 2b (H2b).** There is a negative relationship between Trait EI and negative mood states (NA).

**Hypothesis 3a (H3a).** There is a positive relationship between PA and future orientation.

**Hypothesis 3b (H3b)**. There is a negative relationship between NA and future orientation.



Figure 1. Hypothetical model and suggested hypotheses.

# 2. Method

#### 2.1. Ethics statement, recruitment procedure

This study was conducted in adherence with the Code of Ethics for the Psychologist established by the National Board of Italian Psychologists. Participants were recruited from a variety of online sources. We posted announcements on our research website and ads on websites of care units that focus on female IPV victims, women's physical and mental health, mothers' issues, and divorced women's issues. The announcement specified that we were doing "research on women who experienced aggression from their partners." To be eligible to participate, the women must have been in an intimate relationship (regardless of cohabitation) for at least six months, in which there had been least one episode of severe violence no later than 12 months before the data collection. Severe violence included episodes of physical injuries, punches, choking, kicks, threats with or without a weapon, and sexual violence (Mechanic et al., 2000, 2008). The ads provided a link to an anonymous online survey. After providing consent, the women completed two pages of the questionnaire which included items evaluating the screening criteria above. Women who were eligible to participate in the study were permitted to continue answering the questionnaire. Women who did not meet the eligibility criteria were thanked for their time. At the end of the survey, there was an explanation of how to delete the history of their Internet web browsers.

# 2.2. Participants

The participants were 409 help-seeking women who were victims of IPV and who voluntarily agreed to participate in the study. They had an average age of 32.1 years (SD = 9.2). They spoke Italian and were living in Central Italy. Eight percent of the participants had an elementary school education, 41% had a high school diploma, and 51% completed a university degree. The majority (76%) were married and 24% were separated/divorced. The average duration of abuse was 4.1 years (SD = 7.3).

## 2.3. Measures

#### 2.3.1. Trait Emotional Intelligence Questionnaire-Short Form

The Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF; Petrides, 2009; Petrides and Furnham, 2006; Italian version by Di Fabio et al., 2016) is a multidimensional instrument that evaluates global trait EI; it can also be used to assess the four trait EI factors: well-being, self-control, emotionality, and sociability.

The scale includes 30 items rated on a 7-point Likert scale ranging from *strongly disagree* to *strongly agree*. Items include e.g. "I'm able to "read" most people's feelings like an open book"; "I often find it difficult to adjust my life according to the circumstances." As indicated by the TEIQue-SF scoring key (Petrides, 2009), four items contribute to global trait EI only and not to any of the four factors. Therefore, these items were only used to compute global trait EI scores. In the current study, the Cronbach's  $\alpha$  reliability coefficients were as follows: well-being (.87), self-control (.70), emotionality (.72), sociability (.70), and global trait EI (.89). These values are similar to the internal reliabilities reported by Petrides (2009) in his validation study.

### 2.3.2. Positive Affect-Negative Affect Schedule

Participants' mood states were assessed using the 20-item Positive Affect-Negative Affect Schedule (PANAS; Watson et al., 1988; Italian version by Terracciano et al., 2003). This instrument is composed of two mood states measuring PA and NA, each with ten items. The PA subscale reveals the level of pleasurable engagement or the extent to which a person feels enthusiastic and active. The NA subscale indicates a general aspect of subjective distress and disagreeable engagement that includes aversive affects such as nervousness, fear, shame, and guilt. The participants evaluated how each item represented their mood states on a scale of 1 (*very slightly or not all*) to 5 (*extremely*). Scores were computed for both PA and NA; the highest scores on negative items indicated the most positive affect. In this study, the PA and NA subscales of PANAS had good internal consistency (Cronbach's  $\alpha = .81$  and .89, respectively).

# 2.3.3. Long-Term Personal Direction Scale

Participants' future orientation was assessed using the Long-Term Personal Direction Scale (LTPDS; Wessman, 1973), an instrument intended to measure cognitive beliefs about links between past, present, and future actions. The 20 items are evaluated on a 7-point Likert scale ranging from *not at all descriptive* to *perfectly descriptive*. Items include e.g. "I am aware of a sense of continuity in my life"; "I feel that life has no pattern or reason". In this study, the scale had good internal consistency (Cronbach's  $\alpha = .73$ ).

# 2.3.4. Achievability of Future Goals Scale

The Achievability of Future Goals Scale (AFGS; Heimberg, 1963) assesses individuals' affective evaluation of the future orientation. The scale contains eight items rated on a 7-point Likert scale ranging from *not at all descriptive* to *perfectly descriptive*. Items include e.g. "I look forward to the future with hope and enthusiasm"; "I expect to become the kind of person I most want to be". In this study, the scale had good internal consistency (Cronbach's  $\alpha = .72$ ).

#### 2.4. Data analysis

Data were preliminarily screened for outliers and errors. The level of missing data was examined to guarantee that less than 10% of the data

were missing across scale scores. No missing data were found. We investigated the distribution of all study variables. The means, standard deviations, and intercorrelations among variables are reported in Table 1.

To test our hypothesised model (Figure 1), we applied structural equation modeling (SEM) using Amos 21.0. Specifically, the hypothesized model comprised two latent variables (trait EI and Future orientation) and eight observed variables. The trait EI latent variable was assessed with the use of the four trait EI factors of TEIQue-SF. The future orientation latent variable was assessed by two scales: LTPDS and AFGS; together, these scales have been proven to provide a more complete assessment of future orientation than each measure alone (Cabras and Mondo, 2017).

The positive and negative mood states observed variables were assessed using the PA and NA scales of PANAS. To evaluate the proposed model, as described by Kline (2015), several indicators were taken into consideration. Because the  $\chi^2$  statistic is highly susceptible to sample size, other fit indicators were considered: the comparative fit index (CFI), the Tucker-Lewis Index (TLI), the standardized root mean square residual (SRMR), and the root mean square error of approximation (RMSEA) along with its 90% confidence interval (CI). Fit indices were considered good if they were greater than .90 for CFI and TLI and less than .08 for SRMR and RMSEA (Brown, 2006; Kline, 2015). A bootstrapping procedure using 1,000 subsamples was performed to evaluate the statistical significance of each path coefficient.

# 3. Results

#### 3.1. Correlations of the variables, test of normality, and multicollinearity

Table 1 shows the means, standard deviations, and intercorrelations between the observed variables. Trait EI was significantly related to LTPDS, AFGS, positive mood states, and negative mood states. Furthermore, LTPDS and AFGS were significantly related to both positive and negative affectivity. Furthermore, for all study variables the skewness and kurtosis values were between 1 and – 1; the results satisfy the assumption of a normal distribution (Kim, 2013). In addition, diagnostic checks for multicollinearity were performed through variance inflation factors. The variance inflation factors ranged from 1.32 to 2.11, indicating that there was no problem with multicollinearity (Grewal et al., 2004).

# 3.2. Structural model

A structural model was used to assess the effect of trait EI and mood states on future orientation. Specifically, the model estimated the direct effects of trait EI on positive and negative mood states (PA and NA), the

Fable 1. Descriptive statistics and inter-scale correlations.											
	М	SD	1	2	3	4	5	6	7	8	9
1.WB	5.3	1.1									
2.SC	4.3	1.0	.50**								
3.EM	7.2	1.1	.39**	.36**							
4.SO	4.7	1.0	.41**	.44**	.39**						
5.GLOBAL TEI	5.0	.7	.78**	.74**	.71**	.72**					
6.PA	3.4	.7	.58**	.39**	.26**	.38**	.57**				
7.NA	2.4	.8	61**	52**	36**	32**	61**	49**			
8.LTPD	4.7	.8	.66**	.52**	.38**	.43**	.68**	.62**	66**		
9. AFG	5.2	.8	.67**	.41**	.32**	.37**	.61**	.57**	57**	.66**	

Note:

WB = WELL\_BEING subscale of TEIQue-SF; SC = Self-Control subscale of TEIQue-SF; EM = Emotionality subscale of TEIQue-SF; SO = Sociability of TEIQue-SF; GLOBAL TEI = global trait EI of TEIQue-SF; PA = positive affectivity subscale of PANAS, NA negative affectivity subscale of PANAS; LTPD = total scale of LTPDS; AFG = total scale of AFGS. \*\*p < .001.

Predictor	Outcomes								
	PA	NA	Future orientation						
	Direct	Direct	Direct	Indirect					
Trait EI	.70*	74*	.72*	.22*					
	CI = .60 to.74	CI =79 to67	CI = .58 to.85	CI = .10 to.32					
PA	-	-		-					
NA	-	-		-					

direct and indirect effects of trait EI on future orientation, and the direct effects of PA and NA on future orientation. The results of the path model were appropriate ( $\chi^2 = 65.37$ , df = 17, p = .000, CFI = .97, IFI = .97, RMSEA = .08 [90% CI = .06, .11], SRMR = .04). It should be noted that trait EI had significant direct and indirect effects on future orientation. In addition, trait EI had significant direct effects on PA and NA. Finally, positive and negative mood states had statistically significant direct effects on future orientation (Table 2, Figure 2).

#### 4. Discussion

This study explores the relationships between trait EI, mood states, and future orientation in a sample of female IPV victims. Our findings support the hypothesis that the negative view of the future in victims of IPV is attributable to their difficulties understanding, managing, and using their own emotions (Hypotheses 1). It is likely that high levels of trait EI reduce pessimistic future views and increase optimistic ones (Alexander et al., 2014; Farnia et al., 2018). It is also plausible that high levels of trait EI may help female victims of IPV escape abusive situations. By understanding and adapting to the states of themselves and others, they can overcome problems more easily and gain a sense of optimistic expectancy for future events.

Our results showed that trait EI was strongly positively related to PA and strongly negatively related to NA (Hypotheses 2a and 2b). The strong effect of trait EI for both PA and NA demonstrates the important role of

trait EI in helping IPV victims identify and interpret signals that inform self-regulatory action to develop positive mood states and avoid negative ones. In line with previous research accounting for the relationship between EI and NA, these results highlight the important role of this personality characteristic in order to avoid deteriorating mood states (Howe et al., 2019; Kong et al., 2019; Mikolajczak et al., 2009; O'Connor et al., 2017). Therefore, female victims of IPV with a high level of trait EI are likely to feel less fearful and anxious under traumatic conditions. Trait EI can help IPV victims deal with negative mood states and promote positive feelings (Howe et al., 2019; Lea et al., 2018; Mikolajczak et al., 2009). Positive mood states seem to strengthen psychological resources and one's positive orientation towards the future (Hypotheses 3a); conversely, negative mood states darken the future perspective of female IPV victims (Krizan and Windschitl, 2007; Lewis et al., 1995) (Hypotheses 3b). Negative mood states can specifically foster vulnerability and develop a pessimistic future outlook (Wilson and Gilbert, 2003).

Our results also showed that trait EI was associated with the future orientation of IPV victims both directly and indirectly through their mood states (Hypothesis 3). These findings are in line with previous research that associated trait EI with positive/negative mood states and future orientation (see Armstrong et al., 2011; Mikolajczak et al., 2006). Our results suggest that trait EI is associated with the way women IPV victims perceive and handle life events, which may in turn increase their level of PA and positive orientation towards the future. IPV victims who have the psychological resources to recognize, use, and understand their



Figure 2. Final model with path coefficients. Note: WB = WELL\_BEING subscale of TEIQue-SF; SC = Self-Control subscale of TEIQue-SF; EM = Emotionality subscale of TEIQue-SF; SO = Sociability of TEIQue-SF; LTPD = total scale of LTPDS; AFG = total scale of AFGS. \*\*p < .001; \*p < .01.

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emotions may have more self-control over their traumatic experiences because they can make sense of them. Witnessing individual differences in how IPV victims manage and use emotions may be helpful to understand essential affective processes of their future perception and could partly explain their difficulties abandoning abusive relationships.

The finding that future-orientation is influenced not just by mood states but by female IPV victim's individual trait differences can improve understanding of the affective mechanisms that drive their orientation toward their future. IPV victims with high trait EI experience a lower increase in negative mood (anxiety, sadness, etc.) when faced with traumatic experiences. This preserves their future psychological wellbeing while the IPV victims with low trait EI experience increasingly negative mood states that result in future mental health problems (depression, anxiety disorders, etc.)

# 5. Limitations and future studies

Despite the interesting preliminary evidence regarding the associations between EI, mood states and future orientation, these findings should be interpreted with caution due to the following limitations: First, the cross-sectional design of this research does not allow any stable conclusions and precludes any inference of causality. The outcomes should be verified and supported by further investigations, including longitudinal research. Second, all measures were based on self-reports, so we could not prevent social desirability bias. The accuracy of selfreported EI may be improved by using performance-based measures of EI; for example, MSCEIT – the Mayer-Salovey-Caruso Emotional Intelligence Test (2002).

Third, the participants had to complete the online survey and therefore victims without access to the Internet were excluded. Future research should recruit more varied samples of victims – those who requested assistance from other care providers, experienced psychological abuse in the absence of physical violence, or had less severe exposure to physical violence. Our study involved instances of IPV with a minimum of one episode of severe violence in the past 12 months. Future studies should improve on our model by including a measure of exposure to IPV that fully addresses the severity of IPV experiences, their frequency, and the type of abuse. Moreover, it is important to identify individual and social factors (e.g., age, education level, personality disorders, and weak legal sanctions against IPV within marriage) in order to inform the design of IPV primary prevention programs.

#### 6. Conclusions

Although our findings necessitate replication with longitudinal studies, they propose potential paths to develop psychoeducational methodologies to improve the quality of life of female IPV victims. Early identification of lower trait EI in victims of IPV is crucial to predict the occurrence of the adverse associated consequences like negative mood states, pessimism and poor mental health and well-being in general (El-Khodary and Samara, 2019). The results of this research could provide a valid contribution to the design of interventions aimed to empower and equip the victims of IPV with a logical awareness of the actions to take.

Mental health professionals interested in psychological care could consider training programs based on EI as a supplementary intervention strategy to existing psychoeducational approaches for IPV victims. Trait EI intervention programs for IPV victims should not focus exclusively on personality characteristics, which tend to be resistant to modification in adulthood (Terracciano et al., 2003), but should address the outcomes of the traits, over which the victims have greater control.

Moreover, it is important identify individual and social factors (e.g. young age, low level of education, personality disorders, weak legal sanctions against IPV within marriage) in order to inform the design of IPV primary prevention programs.

#### **Declarations**

#### Author contribution statement

C. Cabras: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

M. Mondo: Contributed reagents, materials, analysis tools or data.

A. Diana: Performed the experiments; Contributed reagents, materials, analysis tools or data.

C. Sechi: Analyzed and interpreted the data; Wrote the paper.

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#### Data availability statement

The data that has been used is confidential.

#### Declaration of interests statement

The authors declare no conflict of interest.

#### Additional information

No additional information is available for this paper.

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