



Gender differences in the predictive effect of perceive emotional intelligence on depressive symptomatology in older adults

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Abstract

The aim of this study was to analyze the associations between emotional intelligence, gender, and depressive symptomatology in older adults. To test whether there were differences between groups in the Trait Meta-Mood Scale dimension, univariate and multivariate analysis of variance were carried out, and *t* tests were performed to find the differences between groups in the variables that had shown differences in the univariate analysis. Participants were 853 Spanish cognitively healthy older adults between 60 and 95 years of age, with a mean age of 71.7 ($SD=7.4$), of whom 64.9% were women. Self-reports were administered to assess the different variables under study. Specifically, the Trait Meta-Mood Scale-24 was used to assess emotional intelligence, and the Centre for Epidemiologic Studies-Depression Scale to measure depressive symptomatology. The three dimensions of emotional intelligence showed differences as a function of gender and depression. Higher scores were found in the three dimensions of emotional intelligence in women. Moreover, people with higher levels of depressive symptomatology had higher scores on attention, and people with low depressive symptomatology had lower levels of clarity and repair. Women with depressive symptomatology showed high levels of attention, in contrast to men and women with low symptomatology. Considering the subjective perception of emotional intelligence, high attention to emotions and the female gender seem to be factors associated with depression in older adults, which allows us to outline a critical profile for depression that should receive special attention. Given the impact of depressive symptomatology in older adults, it is important to identify these profiles in order to detect possible risk factors for depression more effectively.

Keywords Emotional intelligence · Depression · Gender · Older adults · Mental health prevention

Introduction

Depression is a leading cause of disability worldwide and a major contributor to the global burden of disease (World Health Organization; WHO, 2017). During aging, depression

is the primary mental health problem, with a prevalence of around 15% in older adults (Rozing et al., 2019). In a recent study with a sample of people aged 65 and above from 12 European countries, the prevalence was 12.6% for depression and 15.2% for sub-threshold depression (Braam et al.,

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2014). Using data from Waves 5 and 6 of the Survey of Health, Ageing and Retirement in Europe (SHARE), corresponding to the years 2013 and 2015, respectively, Condesala et al. (2019) concluded that in Eastern and Southern Europe countries (such as Spain), the most important predictors were the female gender and impairments in activities of daily living, whereas poorer self-rated health and older age were more relevant in the Northern countries, and chronic diseases were a key factor in the Continental region. Moreover, the prevalence of depressive symptoms was higher in the Southern region (36.2%) and lower in Northern countries (16.8%) These consistent results suggest that further work may be required to explore the possible influence of differences in the expression of depression in different cultures. Older adults seem to show vulnerability to this type of symptomatology, making the study of variables associated with it a necessary topic in gerontology. In this regard, Emotional Intelligence (EI) is related to relevant mental health indicators such as depressive symptomatology (Cabello et al., 2014; Delhom et al., 2017, 2018; Fernández-Berrocal & Extremera, 2016; Lloyd et al., 2012; Navarro-Bravo et al., 2019). In addition, characteristics that may be associated with constructs such as EI, which is considered a protective factor against the occurrence of certain affective disorders, are of interest (Aldao et al., 2010). Specifically, gender is a significant explanatory variable for the variability in EI scores across the lifespan (Cabello et al., 2016) and the associations between EI and depressive symptomatology (Salguero et al., 2012). In light of the above, this study aims to analyze the associations between EI, gender, and depressive symptomatology in cognitively healthy older adults in Spain given the depression may be a reaction to early cognitive deficits (Byers & Yaffe, 2011).

EI was defined in 1997 as “the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth” (Mayer et al., 1997, p. 10). This model has had the most influence in the scientific community, and it has generated two types of instruments to assess ability EI: EI performance tests such as the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer et al., 2002) and self-reports such as the Trait Meta-Mood Scale (TMMS; Salovey et al., 1995). Of them, the one most used with older adults has been the TMMS, which evaluates an individual’s perception of his or her emotional abilities or perceived EI. Specifically, this self-report measure is designed to assess a person’s general beliefs about attending to moods (attention), the clarity of one’s experiences of mood (clarity), and the effort made to repair mood states (repair) (Salovey et al., 1995).

Previous studies have indicated that gender influences the assessment of EI, with women scores being higher than men scores; however, these results depend on the instruments used to assess EI. Research using performance tests such as the MSCEIT found differences in EI related to gender, with higher scores for women than men (Cabello et al., 2016, 2023; Joseph & Newman, 2010). However, studies that use self-reports such as the TMMS found results in both directions (higher EI for men or women, depending on the study) or a lack of gender differences (Bindu & Thomas, 2006; Galdona et al., 2018; Joseph & Newman, 2010; Sánchez-Núñez et al., 2008).

Based on the theoretical framework of Mayer and Salovey (1997), EI is understood as a protective factor in situations that generate negative mood states, and, therefore, it would be linked to better mental health. In general, individuals with better psychological adaptation show moderate to low scores on emotional attention and high scores in the other two dimensions of the TMMS (clarity and repair). Related to emotional attention, high and low levels of this dimension are linked to negative mood states (Aradilla-Herrero et al., 2014). Notably, high levels of attention are related to negative rumination thoughts (Hervás & Vázquez, 2006), and low levels are related to the inability to control emotions (Ruvalcaba-Romero et al., 2017).

With regard to emotional clarity, the lack of ability to differentiate affective states (low levels of clarity) is associated with a more significant affective reaction to a stressor and a low tendency to regulate (Ciarrochi et al., 2001), as well as the tendency to ruminate on a recent stressor (Salovey et al., 1995). In a study on EI and negative mood, Hervás and Vázquez (2006) observed that participants with high perceived emotional clarity showed a temporary decrease in rumination-type thoughts (defined in this study as negative, intrusive, and uncontrollable). In contrast, participants with low emotional clarity showed a constant level of rumination thoughts, leading to negative mood states.

Regarding the repair dimension, high levels in this dimension are related to better mental health and well-being (Extremera & Fernández-Berrocal, 2006; Gómez-Romero et al., 2018). People who manage their emotions will have greater control over mood states, applying adaptive regulation strategies that allow them to maintain positive moods and modify or regulate negative ones (Hervás & Vázquez, 2006).

Research on EI and depression has shown that the dimensions of clarity and repair are negatively related to depressive affect and emotional discomfort, whereas the attention dimension is positively related to these emotional phenomena (Aradilla-Herrero et al., 2014; Delhom et al., 2018; Extremera & Fernández-Berrocal, 2006; Sánchez-Álvarez et al., 2016). In addition, some studies suggest that gender

appears to act as an important variable in the relationship between EI and depressive symptomatology (Fernández-Berrocal & Extremera, 2016; Salguero et al., 2012, 2015). Specifically, Salguero et al. (2015) analyzed the interaction between performance EI, perceived EI, and gender, and they found that perceived EI moderated the associations between ability EI and depression in women. Specifically, women reported less depressive affect only if they had higher levels of ability EI assessed by a performance test (MSCEIT) and showed higher levels of perceived EI. Therefore, the perception of EI seems to be a critical factor in explaining depression because having emotional abilities may not be enough. Despite their advantages on performance tests, women also need a high self-perception that they are experts in these abilities before they can put them into action (Salguero et al., 2015). These findings agree with studies that highlight that men can self-report higher EI than they subsequently perform; that is, they overrate their abilities. At the same time, women report lower levels of EI in their results on performance tests, thus underestimating their capacity (Fernández-Berrocal & Extremera, 2016; Sánchez et al., 2008).

The current study

Although the investigation of EI in older adults is still an evolving field, prior research on the association between EI and depression consistently reveals a significant link between these variables (Delhom et al., 2018, 2022; Luque-Reca et al., 2016; Lloyd et al., 2012). Some of these studies propose that EI not only serves as a substantial predictor of depressive symptoms, but they also suggest that interventions aimed at enhancing EI skills have an impact on reducing the presence of depressive symptoms (Delhom et al., 2022). These findings underscore the importance of effective emotional management as a potential protective factor against the onset of depressive symptoms in older adults, prompting further exploration of additional factors influencing this relationship, such as gender.

Building on enlightening results regarding the interplay between EI, gender, and depression (Cabello et al., 2016; Navarro-Bravo et al., 2019; Salguero et al., 2012), we find it pertinent to investigate the associations between these variables. This exploration can provide valuable insights for designing targeted interventions within this age group. Given the current demographic trends in longevity and the substantial impact of depression on older adults (Conde-Sala et al., 2019), advocating for interventions that enhance mental health becomes crucial. This is especially true when considering the nuances of the EI dimensions and their relationship with depression, while taking into account potential

gender differences. By doing so, we can tailor intervention strategies to align with the specific characteristics of the target population.

This study sought to examine the correlations among EI, gender, and depressive symptomatology in older adults. Building on our research objectives and the existing literature, we formulated the following hypotheses: (1) TMMS scores will be significantly higher in women than in men in older adults; (2) TMMS scores will be significantly higher in non-depressive older adults compared to their depressive counterparts. Additionally, we investigated the influence of gender on the relationship between TMMS and depressive symptomatology in older adults.

Material and method.

The initial sample comprised 892 participants, with seventeen excluded due to missing data (1.91% of the total) and twenty-two removed as outliers (2.46% of the total). Finally, the remaining sample consisted of 853 participants aged between 60 and 95 years, with a mean age of 71.7 ($SD = 7.4$). Of them, 64.9% were women. In terms of marital status, 70.3% were married, 8% were single, and 21.6% were widowed. Regarding their educational level, 11.8% had less than primary education, 54.7% had completed elementary school, 17% had completed secondary education, and 16.4% had university studies.

The sample was selected from different retirement centers for the elderly in the province of Valencia (Spain), such as classrooms or specialized care centers for the elderly, where older adults participated in leisure activities before the COVID-19 pandemic. Voluntary participation was requested, and prior to conducting the assessment, all the participants were informed of the study objectives and procedure and gave their consent to participate.

The questionnaires were self-administered in groups. First, the sociodemographic data of the participants was collected, and then the MMSE (Folstein et al., 1975) was administered to verify that there was no cognitive impairment. We also verified that they met the inclusion criteria, which were: aged 60 or more, not being under institutional care, and not having cognitive impairment that interfered with their daily activities. Finally, participants who met the criteria were tested and gave their informed consent. Our study follows the principles of the Declaration of Helsinki.

Instruments

Sociodemographic information form, which includes age, gender, marital status, and educational level.

The Mini-Mental State Examination (Folstein et al., 1975) is a screening test that quantitatively estimates the existence and severity of cognitive impairment. The Spanish version by Lobo et al. (2002) was used. The maximum

score is 30 points, which is obtained by adding together the scores on all the items. The cut-off score for cognitive impairment is usually set at 23 points.

To measure depressive symptomatology, we used the Spanish translation of the Centre for Epidemiologic Studies-Depression Scale (CES-D) (Radloff, 1977). We administered the version adapted to the older Spanish population (Latorre & Montañés, 1997). This scale has 20 elements included in previously validated depression scales. Regarding the response format, for each element, the participants had to indicate how often they experienced the symptom on a frequency scale ranging from 0 (rarely or never, less than a day) to 3 (many times or all the time, between 5 and 7 days). Higher scores indicate a greater presence of depressive symptoms. This scale is widely used in research with adults, and it has good reliability, internal consistency, and discriminant and construct validity (Radloff, 1977). In our sample, Cronbach's alpha was 0.81.

Trait Meta-Mood Scale (TMMS-24; Fernández-Berrocal et al., 2004). We administered the version adapted to the Spanish older population by Delhom et al. (2017). It is a self-report instrument rated on a five-point Likert-type scale (1=Strongly disagree, 5=Strongly agree) that offers a measure of perceived EI based on the theoretical model by Salovey and Mayer (1990). The scale has three key dimensions: the attention dimension refers to the degree to which people believe they pay attention to their emotions and feelings. Intermediate-low scores in this dimension define adequate EI. The clarity dimension refers to the way people perceive their emotions. High scores in this dimension define adequate EI. The repair dimension is the subject's belief about his/her capacity to interrupt and regulate negative emotional states and prolong positive ones. High scores in this dimension define adequate EI. In our sample, Cronbach's alpha was 0.82 for attention, 0.82 for clarity, and 0.87 for repair.

Analysis

Descriptive Statistics were performed to show means, standard deviations, and reliability indices for all the study variables.

Multivariate analyses of variance (MANOVA) were conducted to explore potential main and interaction effects of independent variables on the dependent variables. Categorical independent variables included gender (men/women) and the presence of depressive symptomatology (yes/no), whereas continuous dependent variables encompassed the TMMS dimensions (attention, clarity, and repair). A significance level of 5% was adopted, and Wilks' lambda was used to evaluate differences among the levels of independent variables in conjunction with dependent variables. MANOVAs

with statistically significant interactions underwent further examination with Bonferroni correction through univariate simple effects analyses and post-hoc tests (Tukey's HSD) to identify group differences. Partial eta squared served as an effect size measure, with Cohen's criteria indicating small (≥ 0.01), medium (≥ 0.06), and large (≥ 0.14) effects (Cohen, 2013). Statistical analyses were conducted using SPSS 21.

With regard to the assumptions of the analysis of variance (ANOVA), three fundamental conditions of ANOVA were met: the dependent variable's continuous scale, the categorical scale of the independent variable with two or more levels, and independence between observations to ensure that each participant's dependent variable was measured only once.

In addition to the aforementioned statistical assumptions, multivariate normality was assessed. The dependent variables collectively were required to exhibit a normal distribution within each level of the independent variables. The Kolmogorov-Smirnov test was applied due to the large sample size. Although univariate normality is necessary, it is not sufficient (Bray & Maxwell, 1985). Non-compliance with this assumption was observed, but Romero (2006) suggests that in studies with acceptable sample sizes, non-normality issues are not severe unless they stem from anomalies rather than asymmetry.

Subsequently, skewness and kurtosis were calculated for the three dependent variables, revealing negative skewness and platykurtic distribution. Outliers were identified by transforming dependent variables into standard scores, resulting in the exclusion of 22 subjects prior to analysis.

Regarding the homogeneity of variance assumption, Box's M test was applied (15.99, $p < .001$). However, and regardless of the significance obtained, Spearman's Rho was calculated for each pair of dependent variables at each level of independent variables, showing not only significant but also similar correlations across levels.

Lastly, with only seventeen participants exhibiting missing data, the listwise deletion technique was applied to handle missing values. This method involves removing rows with missing data, thus avoiding the need for result proration and allowing analysis with real values. Data imputation was not performed.

Results

Means, standard deviations, and reliability indices for all our study variables are shown in Table 1.

MANOVA was applied to study the possible mean differences in the TMMS dimensions (dependent variables) according to the independent variable: gender and the

Table 1 Means and standard deviations and Cronbach's alpha of the variables under study

	Mean (DT)	Cronbach's alpha
CES-D	17.65 (10.21)	0.81
Attention	3.29 (0.88)	0.82
Clarity	3.61 (0.73)	0.82
Repair	3.59 (0.81)	0.87
Total TMMS	10.49 (1.83)	

presence of depressive symptomatology, covariant with educational level, given the relationship with these variables pointed out in the literature (see Table 2).

When applying the MANOVA, multivariate contrasts showed significant main effects for the gender variable ($\Lambda = 0.033$, $F_{3, 846} = 9.67$; $p < .001$; $\eta^2 = 0.033$) and depressive symptomatology ($\Lambda = 0.079$, $F_{3, 846} = 24.24$; $p < .001$; $\eta^2 = 0.079$), as well as for the interaction between these two variables ($\Lambda = 0.012$, $F_{3, 846} = 3.47$; $p = .016$; $\eta^2 = 0.012$); the covariate variable, educational level, was not significant ($\Lambda = 0.004$, $F_{3, 846} = 1.16$; $p = .321$; $\eta^2 = 0.004$).

Given the significance of the variables gender, symptomatology, and their interaction, post hoc ANOVAs were performed. With regard to gender, significant differences were obtained for the three dimensions of EI: attention ($F_{1, 848} = 23.05$; $p < .001$; $\eta^2 = 0.026$), clarity ($F_{1, 848} = 4.87$; $p = .027$; $\eta^2 = 0.006$), and repair ($F_{1, 848} = 10.73$; $p = .001$; $\eta^2 = 0.012$), with the scores obtained by the group of women being higher in all cases. In relation to depressive symptomatology, significant differences were obtained for the three dimensions of EI: attention ($F_{1, 848} = 4.17$; $p = .041$; $\eta^2 = 0.005$), clarity ($F_{1, 848} = 32.38$; $p < .001$; $\eta^2 = 0.037$), and repair ($F_{1, 848} = 38.11$; $p < .001$; $\eta^2 = 0.043$), with higher mean scores on attention in depressives and lower scores on clarity and repair.

Finally, in relation to the interaction between gender and depressive symptomatology, Fig. 1 shows the scores on the attention dimension that were significant in the MANOVA.

Based on the means for the interaction of the attention dimension, a pattern was observed in which women with depressive symptomatology focus significantly more attention on their emotions than those without symptomatology. This pattern is not observed in the group of men, whose their scores do not show significant differences depending on the symptomatology.

Table 2 Means and standard deviations of the TMMS dimensions according to gender and the existence of depressive symptomatology

	Symptomatology	Attention	Clarity	Repair
Men	Yes	3.06 (0.93)	3.38 (0.73)	3.28 (0.82)
	No	3.11 (0.84)	3.66 (0.65)	3.64 (0.81)
Women	Yes	3.55 (0.91)	3.50 (0.73)	3.48 (0.83)
	No	3.23 (0.78)	3.79 (0.75)	3.83 (0.72)
Total	Yes	3.41 (0.94)	3.46 (0.73)	3.42 (0.83)
	No	3.18 (0.81)	3.74 (0.71)	3.75 (0.75)

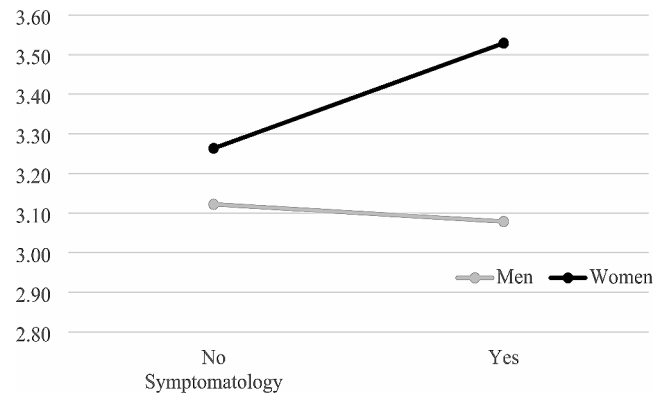


Fig. 1 Mean attention scores as a function of gender and depressive symptomatology

Discussion

The main goal of the current research was to provide deeper insights into the relationships among EI, gender, and depressive symptomatology in older adults. It reveals that older women exhibit higher EI. Older adults with heightened emotional attention and diminished emotional clarity and repair tend to experience elevated levels of depressive symptoms, emphasizing EI as a protective factor for mental health. The association between emotional attention and depression is particularly noteworthy in women, underscoring a critical profile for depression prevention in this demographic.

The most common mental and neurological disorders in adults aged 60 and above are dementia and depression, affecting approximately 5% and 7% of the world's older population, respectively (WHO, 2017). Therefore, it is essential to establish a more critical protective factor in order to reduce the impact of these disorders. In this regard, EI appears to be a protective factor against dementia and depression in older people (Cabello et al., 2014; Delhom et al., 2017, 2018; Fernández-Berrocá & Extremera, 2016; Gutierrez-Cobo et al., 2021; Lloyd et al., 2012; Navarro-Bravo et al., 2019). In the specific case of depression, older adults seem to be especially vulnerable, compared to younger adults. In fact, depression has become the third most common reason for primary care consultations, which makes the study of the variables associated with it a necessary topic in the field of gerontology. In addition, the characteristics that may be associated with these types of constructs that could be

considered protective against the appearance of affective disorders are also of interest (Salguero et al., 2012).

Our results confirmed our first hypothesis that older women obtain higher scores in the three dimensions of the TMMS than older men. Previous literature on EI shows that women score higher than men on performance scales (Cabello et al., 2016; Joseph & Newman, 2010). However, research using self-report questionnaires has shown inconsistent results (Galdona et al., 2018; Joseph & Newman, 2010; Sánchez-Núñez et al., 2008). Galdona et al. (2018), in a study with 338 older Spanish adults between 50 and 90 years old ($M=67$ years), found no significant differences between older women and older men on the TMMS. Nevertheless, the differences between the results from Galdona et al. (2018) and our study could be explained by the sample size and the higher mean age of our sample ($M=72$ years) or by the cultural differences between the north and south-east of Spain (SHARE). Additionally, Galdona et al. (2018) do not show other relevant information related to their sample, such as inclusion criteria, educational level, or mental health, which could explain the differences between our findings. The fact that, in our study, older women obtained higher scores on perceived EI than men can be justified because the Mediterranean culture in Spain is an overall feminist culture in which dominant values include caring for others (Hofstede, 1985). However, the woman prevails as a caregiver, offers emotional support, and manages and maintains the family's social network. Thus, women must develop social and emotional skills to carry out these tasks successfully. At the same time, men can rely on women without feeling the need to develop these skills themselves.

Second, our finding is consistent with hypothesis H2 and previous studies showing that older adults with high scores on emotional attention and low scores on emotional clarity and repair on the TMMS present higher levels of depressive symptomatology. Previous studies found similar results, suggesting that EI is a protective factor of mental health, depression, and well-being in adolescents and adults, but also in older adults (Aradilla-Herrero et al., 2014; Delhom et al., 2017, 2018; Extremera & Fernández-Berrocal, 2006; Llamas-Díaz et al., 2022; Melendez et al., 2018; Sánchez-Álvarez et al., 2016). In fact, in programs for developing EI in the elderly, it has been observed that this type of intervention has the potential to develop EI abilities, which also has an impact on mood (Delhom et al., 2022). Specifically, after administering the program, it was possible to reduce the levels of emotional attention and increase the levels of emotional clarity and repair, and a decrease in hopelessness and depressive symptomatology was observed.

Finally, we explored the role of gender in the association between the TMMS and depressive symptomatology in older adults. Our findings showed an interaction effect

between emotional attention and depressive symptomatology in women, but not in men. This result suggests that the association between emotional attention and depressive symptomatology in older adults is gender moderated. Our findings confirm previous studies that have found gender differences in the relationship between EI and depression (Fernández-Berrocal & Extremera, 2016; Salguero et al., 2012, 2015).

Although further research is needed to establish clear relationships and conclusions, we can speculate on several factors contributing to the difference between women and men. Even though older women score higher than men on self-report tests, showing that women perceive themselves as more emotionally skilled, the emotional attention level in older women with depressive symptoms is higher than their clarity and emotion regulation levels. Several researchers have found that this pattern is harmful to the mental health of different age groups, mainly in women, because high levels of attention to our unpleasant emotions are linked to an increase in maladaptive processes such as rumination and suppression, which, in turn, increase anxious and depressive symptomatology (Salguero et al., 2015). Another possible explanation for the difference between women and men is the influence of gender-based emotional socialization, given that women receive significantly more social pressure to be emotionally skilled. This social pressure can provoke increased emotional attention to activate emotional clarity and regulation processes that are useful to make them feel better and be socially accepted. Nevertheless, this activation is not possible or it is more complex when depressive symptoms are present.

Some limitations have to be mentioned. First, although the sample size was large, the broad age range of the participants should be studied. Current literature on gerontology explores the stage of old age from the age of 60 or 65 until death. However, researchers have increasingly proposed considering distinct stages within old age due to the variability in the characteristics of people aged 60 and 90, for example. Despite the evident lack of consensus in the scientific literature about how to divide old age into several distinct stages, future research on this topic should consider different age groups within the stage of old age to find out if there are differences based on this criterion. Second, our design is cross-sectional and correlational, and so causal inferences cannot be drawn. Longitudinal studies are required to confirm the protective role of perceived EI in depressive symptomatology in older adults. Third, the study variables were measured by self-reports. Responses on these instruments are based on subjective perceptions, which can be biased by social desirability or an incorrect perception of their abilities and behaviors. Therefore, further research is needed to replicate and extend our findings through more

objective measures such as performance ability EI tests like the MSCEIT and clinical indicators of depression. Finally, the effect sizes were generally small in our study; however, they are societally significant, either because they can affect many older people with depression simultaneously or because they can repeatedly affect individual older persons with depression.

Despite these limitations, the present research has significant strengths. This is the first study to provide evidence of the influence of gender on the relationship between perceived EI and depressive symptomatology in older adults in a Mediterranean cultural context. Furthermore, participants met rigorous inclusion criteria to be part of the study: 60 years of age or older, not being under institutional care, and not being cognitively impaired on the MMSE. In addition, their educational level was controlled. Finally, the sample's large size and age range ($N=853$; 60–95 years) is unusual in this type of study, which generally has small samples or adolescents or young adults for participants.

In terms of practical implications for mental health and well-being in older adults, the critical profile (high attention to emotions and female gender) will help to detect possible risk factors for depression more effectively. Additionally, future studies must analyze whether training programs aimed at increasing emotional competencies in older adults, as at other ages, can help to reduce their depressive symptomatology and improve their well-being (Cabello et al., 2016; Delhom et al., 2022).

Final conclusion

This study provides a deeper understanding of the association among EI, gender, and depressive symptomatology in older adults. Specifically, we found that older women have more EI than men. Additionally, older adults with high scores on emotional attention and low scores on emotional clarity and repair presented higher levels of depressive symptomatology, suggesting that EI is a protective factor for mental health and depression in older adults. Finally, the association between emotional attention and depressive symptomatology in older adults was gender moderated (only for women), suggesting a critical profile for depression that must be taken into account in its prevention. Given the current demographic trends in longevity and the substantial impact of depression on older adults, these findings are crucial for designing effective EI interventions that enhance mental health.

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Data availability The datasets generated and/or analyzed during the

current study are available from the corresponding author on reasonable request.

Declarations

Ethical approval Approval was obtained from the ethics committee of University of Valencia (1217558/ 07-02-2020). The procedures used in this study adhere to the tenets of the Declaration of Helsinki.

Conflict of interest statement The authors report that there are no competing interests to declare.

Consent to participate Informed consent was obtained from all the individual participants included in the study.

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