



# Psychosocial Intervention

<https://journals.copmadrid.org/pi>



## Can We Improve Emotional Skills in Older Adults? Emotional Intelligence, Life Satisfaction, and Resilience

Iraida Delhom<sup>a</sup>, Encarnación Satorres<sup>b</sup>, and Juan C. Meléndez<sup>b</sup>

<sup>a</sup>Valencian International University, Valencia, Spain ; <sup>b</sup>University of Valencia, Spain

### ARTICLE INFO

#### Article history:

Received 5 October 2019  
Accepted el 14 February 2020  
Available online 17 March 2020

#### Keywords:

Emotional intelligence  
Resilience  
Life satisfaction  
Older adults  
Intervention

### ABSTRACT

Emotional intelligence has been shown to be a relevant resource associated with better personal and social adaptation. In older adults, it has been associated with constructs such as life satisfaction and resilience, which are of interest in the field of gerontology because of their impact during the aging process. The objective of this study is to test an intervention based on emotional intelligence in order to find out whether the levels of these abilities improve, and whether the intervention has an effect on resilience and life satisfaction. The sample was composed of 125 healthy older adults (treatment,  $n = 57$  and control,  $n = 68$ ). The variables studied were homogeneous between groups. These variables were evaluated using the TMMS-24, SWLS, and BRCS self-report tests. The results showed significant effects of the intervention on the treatment group. Attention levels decreased significantly, whereas clarity and repair increased. In addition, the average scores on resilience and life satisfaction increased. An emotional intelligence-based intervention improves skills of older adults in its three dimensions. In addition, after the intervention, there is an increase in life satisfaction and resilience. Emotional intelligence skills are considered to generate positive, cognitive and behavioral outcomes for adaptation during aging. Thus interventions of this type could contribute to the quality of life of older adults, a topic of great relevance today due to increased longevity.

### ¿Podemos mejorar las habilidades emocionales en adultos mayores sanos? La inteligencia emocional, la satisfacción vital y la resiliencia

### RESUMEN

Se ha demostrado que la inteligencia emocional es un recurso relevante asociado a una mejor adaptación personal y social. En adultos mayores se ha asociado con constructos tales como la satisfacción vital y la resiliencia, que son de interés en el campo de la gerontología debido a su impacto durante el proceso de envejecimiento. El objetivo de este estudio es evaluar una intervención basada en inteligencia emocional para determinar si los niveles de estas habilidades mejoran y si la intervención tiene efecto sobre la resiliencia y la satisfacción vital. La muestra estuvo compuesta por 125 adultos mayores sanos (tratamiento,  $n = 57$  y control,  $n = 68$ ). No existían diferencias entre los grupos al iniciar la intervención en las variables estudiadas. Estas variables se evaluaron mediante las pruebas de autoinforme TMMS-24, SWLS y BRCS. Los resultados mostraron un efecto significativo de la intervención en el grupo tratamiento. El nivel de atención disminuyó significativamente, mientras que la claridad y la reparación aumentaron. Además, aumentó la puntuación media en resiliencia y satisfacción vital del grupo tratamiento. La intervención basada en inteligencia emocional mejora las habilidades de los adultos mayores en sus tres dimensiones. Además, después de la intervención, aumenta la puntuación en satisfacción vital y resiliencia. Se considera que las habilidades de inteligencia emocional generan resultados cognitivos y conductuales positivos para la adaptación durante el envejecimiento. Así, esta intervención puede contribuir a la calidad de vida en adultos mayores, siendo este un tema de gran importancia debido al aumento en la longevidad.

The study of emotional intelligence (EI) during aging is a relevant issue because age has been found to be a modulating variable of this construct (Carstensen et al., 2011; Hay & Diehl, 2011), providing adaptation strategies (Delhom et al., 2018). EI has been defined as the ability to perceive, evaluate, and express one's emotions with precision

(perceiving emotion), the ability to access and generate feelings that facilitate thought (facilitating thought through emotions), the ability to understand emotions and emotional knowledge (understanding emotions), and the ability to regulate emotions and promote emotional and personal growth (managing emotions) (Mayer &

Cite this article as: Delhom, I., Satorres, E., & Meléndez, J. C. (2020). Can we improve emotional skills in older adults? Emotional intelligence, life satisfaction, and resilience. *Psychosocial Intervention*. Ahead of print. <https://doi.org/10.5093/pi2020a8>

Correspondence. [melendez@uv.es](mailto:melendez@uv.es) (J. C. Meléndez).

ISSN: 1132-0559/© 2020 Colegio Oficial de la Psicología de Madrid. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Salovey, 1997). Thus, EI involves a set of emotional skills to effectively use information from emotions, allowing people to employ adaptive coping when faced with stressful life events (Salovey & Mayer, 1990). Mayer et al., (2016) recently indicated that measures of emotional intelligence are still evolving, and that the factor structure of the area remains uncertain, although there is support for both one- and three-factor models. One of the measures based on the three-factor model is the TMMS-24 (Fernández-Berrocal et al., 2004), which assesses EI from an intrapersonal and self-perceived perspective. The TMMS-24 describes three skills: attention, clarity, and emotional repair. The attention dimension refers to the degree to which people pay attention to their emotions and feelings; the clarity dimension refers to how people perceive their emotions; and finally, the repair dimension refers to a subject's belief about his/her capacity to interrupt and regulate negative emotional states and prolong positive ones. People with the ability to pay moderate attention to emotions show good intrapersonal functioning, which acts as a protector in different risk situations. Attention to the role emotions play in our environment and to the way their effects are expressed can foster personal and social improvement, allowing a person to use accurate reasoning to enhance the process of a positive emotional reaction (Lloyd et al., 2012). However, it is important to point out that constant attention to our emotions can lead to a ruminative process that can give rise to the intensification of emotions at unhealthy levels. With regard to clarity, people with high emotional clarity perceive themselves as more capable of understanding what emotions they are experiencing, how these emotions are manifested, and their causes and consequences. With this information, we may reflect on our emotions and make decisions based on them, thus reducing their intensity and facilitating their subsequent regulation (Delhom et al., 2018). High levels of repair involve the ability to repair emotional states, interrupting and regulating the negative and prolonging the positive, which allows an adaptive management of emotions (Fernández-Berrocal et al., 2004). Thus, moderate levels of attention and high levels of clarity and emotional regulation have been associated with positive variables.

In recent years, EI has begun to emerge strongly, showing important and encouraging results associated with mental health and personal and social well-being (Kong et al., 2019; Lloyd et al., 2012; Sánchez-Álvarez et al., 2016). The importance of emotional functioning throughout an individual's development, including in the last stages of life, is currently being recognized (Rey et al., 2017). However, in the gerontological field, the study of EI is still scarce, depriving the population of the solidly demonstrated benefits of EI training.

EI is considered an indicator of psychological adjustment and a key precursor of feelings associated with wellbeing (Augusto-Landa et al., 2011). Life satisfaction (Delhom et al., 2017) and resilience (Limonero et al., 2012) are two variables that are highly related to the development of EI. Therefore, the increase in and ability to correctly manage emotional skills would make it possible to experience a higher rate of positive emotional states, which would affect these important psychological constructs (Sánchez-Álvarez et al., 2016). The literature suggests that, in particular, the dimensions of clarity and reparation are linked to resilience and life satisfaction, and relationships are found between them at a correlational and predictive level (Limonero et al., 2012; Palomera, & Bracket, 2006).

Life satisfaction refers to people's overall assessment of themselves and the degree to which they experience a sense of wellbeing. Life satisfaction is the cognitive component of subjective wellbeing (Diener et al., 2017) and is based on beliefs and attitudes about an individual's own life (Diener, 2013). It is an important indicator of a broad range of positive personal, psychological, social, interpersonal, and intrapersonal outcomes (Liu et al., 2013). EI can be a necessary prior condition for adaptive control of the emotions and mood and, therefore, a determinant in life satisfaction. Sánchez-Álvarez et al. (2015) showed that clarity and repair were positively correlated with life satisfaction, indicating that high EI tends to result in more positive

experiences and fewer negative experiences. Various studies have shown moderate positive correlations between EI and life satisfaction (Kong & Zhao, 2013). Other studies have shown that EI may be an important predictor of life satisfaction (Carmeli et al., 2009; Delhom et al., 2017). In contrast to EI, the relevance of life satisfaction in older adults has been strongly supported due to its significant impact on mental health (Steptoe et al., 2015).

The relevance of resilience has also been demonstrated in older adults. This construct acquires special relevance due to its connection with coping, which is decisive in the process of adaptation to aging (Tomás et al., 2012). Resilience can be conceptualized as a dynamic process where individuals experience positive adaptation despite adversity or trauma (Luthar et al., 2006) and is facilitated by the use of personal resources and the environment (Windle, 2011). Moreover, resilience is understood as a self-regulatory protection mechanism when facing possible difficult consequences at certain times in life (Mayordomo-Rodríguez et al., 2015; Mayordomo et al., 2016). Aging is a process characterized by the presence of stressful situations, such as a decrease in autonomy and good cognitive functioning, as well as facing one's own death and that of one's contemporaries. In this context, resilience is an important study variable (Caycho-Rodríguez et al., 2018). EI plays an important role in emotional self-control and the ability of the adaptive individual to cope with stressful situations, promoting the use of strategies that mitigate negative emotions and maintain positive ones (Zeidner et al., 2016). There is evidence of an association between resilience and EI. Liu et al. (2013) point out that EI is an antecedent of resilience. Furthermore, Armstrong et al. (2011) found that vulnerable individuals have lower EI scores, whereas resilient individuals have higher EI scores. In addition, it was confirmed that the ability to effectively regulate one's emotions, a central facet of EI, promotes resilience. Thus, Armstrong et al. (2011) argued that EI might be directly linked to resilience.

The effectiveness of interventions based on positive constructions has been demonstrated. In addition to preventing diseases, these interventions improve multiple psychological constructions that are a source of wellbeing and strength (Hodzic et al., 2018). EI could be considered a mediating variable between life events and the consequences these events can have on wellbeing and health. Therefore, applying interventions based on EI could provide older adults with adaptive resources. On the one hand, the ability to clarify and regulate emotions (positive and negative) has been shown to play an important role in coping with stressful situations, which contributes positively to personal wellbeing (Limonero et al., 2012). On the other hand, moderate attention to emotions is adaptive because it makes it possible to extract information from them without being carried away by high intensities, thus facilitating clarity of thought (Delhom et al., 2018). Therefore, the aim of this study is to find out whether an intervention based on emotional intelligence has effective results in a sample of healthy older adults. As a hypothesis, the intervention is expected to improve the ability to understand and regulate emotions while maintaining intermediate levels of attention. In addition, it is expected to increase life satisfaction and resilience scores.

## Method

### Participants

The sample was composed of 125 healthy older adults from Valencia (Spain), recruited through four healthcare centers. Participants were initially contacted by phone, and a face-to-face appointment was scheduled to determine whether they met the inclusion criteria.

Inclusion criteria were as follows: (a) participants had to be older than 65 years; (b) they had to show no evidence of dementia or mild

cognitive impairment, determined by a score of 23 or higher on the Spanish version of the Mini-Mental State Examination (*Mini Examen Cognitivo*; Lobo et al., 2002); (c) they could not be institutionalized; and (d) they had to participate actively in cultural activities. All participants were informed of the study protocols and signed informed consents to participate in the study. Initially, 70 were randomly assigned to a treatment group and 72 to a control group. In the treatment group, 13 subjects dropped out (did not attend 20% of the sessions), and so the intervention ended with 57 subjects. In the control group, four subjects dropped out (did not perform the evaluation the second time), ending with 68 subjects.

With regard to the sociodemographic data for each group, to compare their homogeneity, differences were studied at the measurement time prior to the intervention. No significant differences were obtained between the groups on: age:  $t(123) = 0.431$ ,  $p = .667$ ; gender,  $\chi^2(1) = .968$ ,  $p = .325$ ; marital status:  $U = 1805.5$ ,  $p = .983$ ; or educational level:  $U = 1641.5$ ,  $p = .135$ .

Regarding the sociodemographic data, the control group had an average age of 67.38 ( $SD = 6.50$ ); 55.9% were women; 64.2% were married, 7.5% single, 16.4% divorced, and 11.9% had another type of marital status; 10.4% had less than primary studies, 53.7% primary, 20.9% secondary, and 14.9% university studies. In the treatment group, the average age was 67.89 years ( $SD = 6.75$ ); 52.6% were women; 63% were married, 5.6% were single, 25.8% were divorced, and 5.6% had other situations; 15.8% had less than primary studies, 59.6% primary, 15.8% secondary, and 8.8% university studies.

## Instruments

**Trait Meta-Mood Scale** (Salovey et al., 1995). The 24-item version, adapted to the Spanish population (Fernández-Berrocá et al., 2004) and validated in elderly people by Delhom et al. (2017), was administered. This self-report scale offers a measure of intrapersonal emotional intelligence based on the theoretical model by Salovey and Mayer (1990). The scale contains three key dimensions: attention to feelings, emotional clarity, and repair and regulation of emotions, evaluated on a five-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*). Estimations of reliability using Cronbach's alpha were: .76 for attention, .84 for clarity, and .85 for repair.

**Satisfaction with Life Scale** (SWLS; Diener et al., 1985) is a brief five-item scale that measures overall cognitive judgments about satisfaction with one's life. It is evaluated on a 7-point Likert scale, where 1 = *strongly disagree* and 7 = *strongly agree*. The SWLS has been administered to diverse samples, and different versions have been carried out in different languages, so that the normative data are quite varied. Cronbach's alpha in this study was .86.

**Brief Resilient Coping Scale** (BRCS; Sinclair & Wallston, 2004) was used to assess the tendency to cope with stress in a highly adaptive manner. The BRCS is composed of a single resistant coping factor based on four indicators, with a Likert-type response scale ranging from 1 to 5. Scale analyses show that it has a robust factor structure and satisfactory reliability and criterion validity. It has shown adequate psychometric properties and factorial structure in elderly samples in Spain (Tomás et al., 2012). The internal consistency estimate for this study was .77.

## Procedure

Prior to the intervention, a pilot study was carried out in which the intervention was administered to 2 groups of 10 participants. It was used to make improvements in the intervention program design.

A researcher went to two senior retirement centers to administer the pilot intervention. Once the intervention had been applied and the results obtained, small improvements were made in the design of the sessions, especially in terms of adapting the terminology

used in the sessions to the usual vocabulary of the population under study to achieve greater identification with the content of the sessions. Because the results obtained were positive, we proceeded to search for a larger sample in which to implement the designed intervention. To do so, the researchers contacted different elderly care centers and made appointments with their managers. In the meetings with management, the objectives of the intervention and the evaluation protocol were presented. In all the centers where the proposal was accepted, a program implementation schedule was developed, covering the period from January 2017 to May 2018. Control group participants did not perform any task designed by the researchers that was an alternative to the intervention. They were informed that they would complete the same measures at the same time as the intervention group, but they would not be exposed to the training and would remain on a waiting list for the same intervention a few months later.

## Intervention

This intervention is designed to develop EI skills, taking into account the model proposed by Mayer and Salovey (1997). Thus, three dimensions are considered: attention, clarity, and emotional repair.

Specifically, the proposed intervention program consisted of ten 90-minute sessions held once a week, administered in groups of between 8 and 12 participants. In addition, a previous session was held to evaluate the variables under study (IE, life satisfaction, and resilience), and a final session was held to measure the effects of the intervention. The evaluation was conducted through a face-to-face interview by three trained evaluators, including the researcher who also led the intervention sessions in all the centers.

The contents of the sessions (see Table 1) were structured hierarchically, so that each session began by addressing basic content such as the concepts of emotion and feelings. In addition, greater awareness of a person's own emotional processes was fostered, generating introspection behaviors. Then, each EI dimension was discussed in depth and in an instructional way, addressing these dimensions at a conceptual level to later work on the generation of cognitive and behavioral patterns according to the postulates of these skills.

Thus, the psychological mechanisms underlying the emotions were worked on, as well as aspects related to introspection and awareness of emotions and the context in which they develop, in order to understand their causes and consequences. In most sessions, practical cases were presented, and exercises were proposed for participants to carry out in daily life in the week following the session. In subsequent sessions, the experience gained in applying the skills worked on was addressed. In the last sessions, the integration of all the EI skills was addressed in greater depth, with special emphasis on the emotion management tools of the emotional repair dimension (see Table 1).

The specific objectives set out in the intervention program are presented below. Table 1 shows the contents of the different sessions and their relationship with the different specific objectives.

Participants will:

1. Understand and differentiate the basic concepts that define the emotions and emotional intelligence.
2. Achieve moderate levels of attention to their emotions so that this dimension does not become maladaptive.
3. Achieve better emotional clarity that allows them to perceive and differentiate between the different emotions they experience.
4. Develop emotional regulation through cognitive behavioral strategies to interrupt negative emotional states and prolong positive ones.

**Table 1.** Contents of the Sessions

| Sessions | Contents   | Specific objectives |
|----------|--|---------------------|
| 1        | The foundations of the concept of emotion are established, as well as the psychological mechanisms that underlie this phenomenon and the use of a precise vocabulary when referring to it. A first approach is made to the adaptive nature of emotions.  | 1                   |
| 2        | Introspection and awareness of the importance of identifying emotions in their context are encouraged, relating this contextualization to the dimensions of attention, clarity, and emotional repair.  | 2, 3, 4             |
| 3        | This session is designed to help the participants reach intermediate levels of attention to their emotions through the acquisition of awareness of the need to take control of their emotions. The awareness of the source of information that emotions provide and the usability of such information for a greater understanding of the emotional world itself is worked on.  | 2, 3                |
| 4        | The bidirectionality of emotion and cognition is deepened so that participants know the influence of self-instruction and irrational ideas on emotions. The skills related to the clarity and repair dimensions are worked on. It also addresses the difference between emotion and cognition and the evolution of emotions, integrating it with the use of emotion regulation strategies that can be carried out in different situations.   | 3, 4                |
| 5        | The awareness of the importance of the subject's predisposition in the final result of the emotion is worked on, as well as introspection about how each emotion develops and evolves in oneself (emotional clarity) and how that emotion is managed and developed (emotional repair).   | 3, 4                |
| 6        | This session works on the acquisition of tools related to empathy and assertiveness. In addition, the purpose is for participants to not only have the ability to understand and respect the emotions of others, but also, as a result, to manage their own experience with regard to situations of tension or conflict. On the other hand, the skills of understanding and emotional management are worked on together with coping strategies such as cognitive re-evaluation, as well as training in skills for managing stress in the face of conflict.   | 3, 4                |
| 7        | This session reflects on the actions that are usually carried out in situations of stress, change, or conflict that require a demand for resources. It is intended that participants will become aware of the emotion management tools available to them, in addition to discussing the adaptive level of each.  | 4                   |
| 8        | Implementation of the skills worked on in the previous session. Regulatory skills are taught in order to achieve greater training in them, in addition to reflecting on the daily life situations that may require the application of these tools.   | 4, 5                |
| 9        | The topic is the integration of attention, clarity, and repair in order to strengthen EI skills. Observation is used to find out to what extent the participants have acquired the skills taught, and their training is reinforced.  | 5                   |
| 10       | Strengthening of EI, especially emotional repair skills, is addressed. However, we must not lose sight of the fact that, as <a href="#">Mayer and Salovey (1997)</a> indicate, EI abilities have a hierarchical structure, so that the abilities located at the base of the pyramid (attention) are necessary to achieve the abilities on the upper step (clarity), and both, in turn, are required to reach the top of the pyramid (repair). Thus, although the content of the session is manifested primarily in the training of emotional repair, we implicitly also work on the remaining EI skills. | 5                   |

5. Integrate the different skills and strategies learned to generate adaptive behaviors.

## Analysis

*t*-test analyses were performed for independent samples, as well as chi-square and the Mann-Whitney test to check the sociodemographic characteristics of the participants before the intervention. To analyze the effects of the intervention, an analysis

of variance was performed for repeated measures with Bonferroni adjustment, studying the interaction (group x time) and the simple effects of time and group. The effect size (Cohen *d*) was measured based on the following values: 0.20-0.49 small effect; 0.50-0.79 medium effect, and > 0.80 large effect ([Cohen, 1988](#)).

## Results

The main effects after the treatment were significant for attention, clarity, repair, resilience, and satisfaction (see [Table 2](#)).

**Table 2.** Effects of Interaction and Group Means

|      | Principal effects |           |          |          | Treatment group |              | Control group |              |
|------|-------------------|-----------|----------|----------|-----------------|--------------|---------------|--------------|
|      | <i>F</i>          | <i>df</i> | <i>p</i> | $\eta^2$ | T1              | T2           | T1            | T2           |
| AT   | 7.11              | 1/123     | .009     | .055     | 3.82 (0.65)     | 3.37 (0.66)  | 3.81(0.73)    | 3.78 (0.74)  |
| CL   | 7.15              | 1/123     | .009     | .055     | 3.72 (0.68)     | 4.11 (0.50)  | 3.57 (0.70)   | 3.60 (0.68)  |
| RP   | 21.39             | 1/123     | < .001   | .148     | 3.71 (0.67)     | 4.31 (0.64)  | 3.73 (0.77)   | 3.70 (0.72)  |
| SWLS | 18.08             | 1/123     | < .001   | .148     | 22.86 (6.79)    | 27.08 (4.99) | 24.50 (6.01)  | 24.21 (6.32) |
| BRCS | 12.91             | 1/123     | < .001   | .109     | 3.37 (0.76)     | 3.95 (0.72)  | 3.41 (0.73)   | 3.42 (0.81)  |

Note. AT = attention; CL = clarity; RP = repair.

The study of simple effects confirmed the homogeneity of the groups, with no differences in the pretreatment scores. After the intervention, significant differences between groups were obtained at post-treatment in all the dimensions (see Table 3).

**Table 3.** Simple Effects between Groups at Pre-treatment and Post-treatment

|           | Pre-treatment |       |      |          | Post-treatment |       |          |
|-----------|---------------|-------|------|----------|----------------|-------|----------|
|           | df            | F     | p    | $\eta^2$ | F              | p     | $\eta^2$ |
| Attention | 1/123         | 0.013 | .910 | .001     | 10.50          | .002  | .079     |
| Clarity   | 1/123         | 1.450 | .231 | .012     | 21.64          | <.001 | .150     |
| Repair    | 1/123         | 0.031 | .862 | .001     | 24.48          | <.001 | .166     |
| SWLS      | 1/123         | 1.630 | .204 | .015     | 5.18           | .018  | .053     |
| BRCS      | 1/123         | 0.052 | .821 | .001     | 11.41          | .001  | .097     |

Finally, the evolution of the groups over time was studied. In relation to EI, attention obtained a significant effect in the treatment group,  $F(1, 123) = 14.81, p < .001, \eta^2 = .107$ , resulting in a significant decrease from pretreatment to post-treatment (mean difference = .45,  $SE = .119, p < .001, d = 0.68$ ). For the control group, the effects were not significant,  $F(1, 123) = 0.065, p = .799, \eta^2 = .001$ .

Clarity showed a significant increase,  $F(1, 123) = 15.09, p < .001, \eta^2 = .109$ , in the treatment group (mean difference = -.38,  $SE = .099, p < .001, d = -0.65$ ); effects on the control group were not significant,  $F(1, 123) = .080, p = .778, \eta^2 = .001$ .

Repair obtained a significant effect in the treatment group,  $F(1, 123) = 35.36, p < .001, \eta^2 = .223$ , resulting in an increase (mean difference = -.60,  $SE = .102, p < .001, d = -0.91$ ); effects on the control group were not significant,  $F(1, 123) = .126, p = .723, \eta^2 = .001$ .

Regarding the SWLS, a significant effect was observed in the treatment group,  $F(1, 123) = 24.63, p < .001, \eta^2 = .191$ , resulting in a significant increase from pretreatment to post-treatment (mean difference = -4.21,  $SE = .848, p < .001, d = 0.71$ ). For the control group, the effects were not significant,  $F(1, 123) = .215, p = .644, \eta^2 = .002$ .

Finally, with regard to the BRCS, a significant effect was obtained in the treatment group,  $F(1, 123) = 21.82, p < .001, \eta^2 = .171$ , resulting in a significant increase from pretreatment to post-treatment (mean difference = -.58,  $SE = .094, p < .001, d = -0.78$ ). For the control group, the effects were not significant,  $F(1, 123) = .038, p = .846, \eta^2 = .001$ .

## Discussion

The effectiveness of psychosocial interventions based on emotional intelligence has been shown since the appearance of this concept, although little is known about its usefulness in healthy older adults. This study showed that when administered to healthy older adults, positive results can also be achieved. Specifically, an improvement in emotional abilities was obtained, as well as an increase in life satisfaction and resistance scores in the treatment group.

The model proposed by Mayer and Salovey (1997) points out that the dimensions of EI maintain a hierarchical organization where improving emotional repair skills implies previously increasing emotional clarity and achieving intermediate levels of attention (Zeidner et al., 2016). The results obtained showed that the intervention significantly modified the levels in the three intrapersonal dimensions of EI, centralizing the attention dimension scores and increasing the scores in the clarity and repair dimensions. Developing these skills could potentially be a resource to successfully adapt to adversities, using the value of emotions to benefit personal development. This result is significant because the achievement of intermediate levels of attention will help to extract significant information from emotions without letting them become stagnant. Likewise, constant attention to emotions facilitates the implementation of a rumination process that can lead to the intensification and maintenance of a maladaptive emotional state, and this is a relevant factor in mental health in aging

(Lloyd et al., 2012). This is particularly true when excessive attention to emotions is not followed by a sufficient capacity to understand their causes, motives, and consequences. Maintaining high levels of clarity will involve a significant understanding of emotions, both one's own and others', as well as their causes and consequences. High levels of emotional repair will allow emotional states to be managed in a way that is appropriate for the context, integrating emotional information into individuals' general functioning and taking control of it. Thus, and in line with the previous literature, it can be seen that the dimensions of clarity and repair are especially linked to resilience and life satisfaction (Delhom et al., 2018; Limonero et al., 2012). In addition, according to Hodzic et al. (2018), interventions based on the hierarchical model are the most effective for developing EI.

The intervention based on EI produced an increase in the levels of life satisfaction and resilience. In a recent meta-analysis, Sánchez-Álvarez et al. (2016) showed that, independently of the EI theoretical streams used, EI studies show a significant association with SWB through their different EI measures. Moreover, the results showed a higher association between self-reported EI measures and life satisfaction (cognitive component of SWB). Attention to emotions exercises the role of selecting useful emotional information as an adaptive resource. In this way, training in attention skills, without it being excessive, would contribute to giving emotions the necessary importance at all times, thus influencing the judgments the person makes about his/her own life. With regard to clarity and repair, Extremera et al. (2009) observed that clarity and emotional repair play an important role in the way people experience satisfaction and pleasure in their lives. Clarity would play a moderating role between stressful situations and satisfaction with life. In this regard, individuals with a high perceived ability to interpret emotional information and deal more effectively with emotional issues would achieve a greater sense of life satisfaction. Knowing how the emotional world develops and being able to regulate it could contribute to a greater sense of control, so that judgments about one's life would be made based on this feeling of competence, positively influencing them. In general, individuals with high perceived ability to know, manage, and interpret emotional information might deal effectively with emotional issues and achieve a greater sense of life satisfaction. Thus, the intervention based on EI offers an interesting tool for increasing clarity in older adults.

Regarding EI and resilience, emotionally intelligent individuals show more resilience, thus facilitating better adaptation to changes in stressful situations and appraising stress as a challenge rather than a threat. In the long term, EI allows for the use of richer resources and adaptive coping, leading to long-term emotional benefits. Therefore, emotional skills are hypothesized to have a two-way action. EI might reduce the occurrence and duration of the negative emotions that appear as a consequence of stressful events, but emotional skills might also increase the frequency and maintenance of positive emotions over time (Sánchez-Álvarez et al., 2015). Specifically, attention skills would make it possible to extract emotional information necessary for the processing of information, generating more adaptive behaviors. In relation to resilience, the role of emotional attention skills is based on using both positive and negative emotions to obtain information about the most adaptive responses in an adverse situation (Delhom et al., 2018). Thus, emotions become a key resource to overcome difficult situations and emerge stronger from them. Regarding clarity and emotional repair, as Extremera et al. (2009) showed, emotional clarity plays an important role in resilience by providing the person with skills to understand the meaning of adverse situations, thus generating learning that can be useful in the future. In this way, tools would be available to assimilate the development of emotions and have the ability to anticipate them, which also leads to a greater sense of control. Gross (1998) showed that emotional regulation would affect resilience through two processes. First, it would be involved in the generation of emotions and the regulation of the background of

the emotional process, where the processes of cognitive restructuring or reevaluation of the situation would be the essential strategies. Second, it would be involved in the emotional response, that is, in its modulation by, for example, reducing the impact of negative emotions and maintaining or enhancing the impact of positive ones. As can be seen, EI would act through a temporary process extending from the generation of emotions to their impact on the person. Knowledge about our emotional world and the way of disregarding these emotions has great relevance in the way we tackle adversity adaptively and learn from these experiences (Kong et al., 2019).

In short, we can conclude that an intervention based on EI improves the ability levels of this construct and, in addition, enhances life satisfaction and resilience. These results reveal an important resource for older adults because people with high levels of resilience and satisfaction tend to cope better with stressful situations by setting in motion an array of personal (such as self-efficacy and self-esteem) and interpersonal (such as social and family support) mechanisms that facilitate adaptation. EI would provide the individual with these mechanisms, thus improving overall emotional management (Caycho-Rodríguez et al., 2018). In this regard, it should be noted that EI is not only related to negative symptomatology (Delhom et al., 2018; Lloyd et al., 2012), but also to developing positive mental health tools in older adults that increase their wellbeing.

In summary, EI can be developed in healthy older adults as a potential resource that contributes to life satisfaction and resilience. In this regard, it is considered relevant to enhance the development of positive psychological constructs in psychogerontology, so that we provide people with the necessary adaptive tools to successfully face the aging process. It is suggested that such interventions could contribute to the quality of life and everyday life activities of older adults (Meléndez et al., 2011), a topic that is of great relevance today.

One limitation of this work is gender ratio, because more women participated in the intervention than men. In addition, a follow-up evaluation is not available. A difficulty in psychological interventions with older adults is achieving high adherence to treatment because health problems and free time spent on other tasks make it difficult to obtain follow-up measures. Hence, it was not possible to verify whether the results obtained after the intervention were maintained over time. As a future line of research, it would be interesting to carry out a follow-up evaluation and include the evaluation of variables indicating negative symptomatology, such as negative affect, in order to find out whether the intervention can reduce negative variables while promoting positive ones. It should be noted that the control group did not perform an alternative task to the intervention. In this regard, as Durlak & DuPre (2008) suggest, it is recommended that control groups in all participating groups should receive alternative training in order to more precisely estimate the effect of the program. In future research, this aspect should be considered. In addition, it would be interesting to include skill measures such as the MSCEIT, which assesses both intrapersonal emotional intelligence and interpersonal emotional intelligence, in order to verify whether the intervention works in two directions. This measure also avoids the problems of self-report measures when testing the skills being studied. The possibility of including measures related to social support and satisfaction with the social network could also be considered.

### Conflict of Interest

The authors of this article declare no conflict of interest.

### References

- Armstrong, A. R., Galligan, R. F., & Critchley, C. R. (2011). Emotional intelligence and psychological resilience to negative life events. *Personality and Individual Differences, 51*, 331-336. <https://doi.org/10.1016/j.paid.2011.03.025>
- Augusto-Landa, J. M., López-Zafra, E., & Pulido-Martos, M. (2011). Perceived emotional intelligence and stress coping strategies in primary school teachers: Proposal for an explanatory model with structural equation modelling (SEM). *International Journal of Social Psychology, 26*, 413-425. <https://doi.org/10.1174/021347411797361310>
- Carmeli, A., Yitzhak-Halevy, M., & Weisberg, J. (2009). The relationship between emotional intelligence and psychological wellbeing. *Journal of Managerial Psychology, 24*, 66-78. <https://doi.org/10.1108/02683940910922546>
- Carstensen, L. L., Turan, B., Scheibe, S., Ram, N., Ersner-Hersfield, H., Samanez-Larkin, G. R., Brooks, K. P., & Nesselroade, J. R. (2011). Emotional experience improves with age: Evidence based on over 10 years of experience sampling. *Psychology and Aging, 26*, 21-33. <https://doi.org/10.1037/a0021285>
- Caycho-Rodríguez, T., Ventura-León, J., García-Cadena, C. H., Tomás, J. M., Domínguez-Vergara, J., Daniel, L., & Arias-Gallegos, W. L. (2018). Evidencias psicométricas de una medida breve de resiliencia en adultos mayores peruanos no institucionalizados. *Psychosocial Intervention, 27*, 73-79. <https://doi.org/10.5093/pi2018a6>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Academic Press.
- Delhom, I., Gutierrez, M., Lucas-Molina, B., & Meléndez, J. C. (2017). Emotional intelligence in older adults: Psychometric properties of the TMMS-24 and relationship with psychological well-being and life satisfaction. *International Psychogeriatrics, 29*, 1327-1334. <https://doi.org/10.1017/S1041610217000722>
- Delhom, I., Gutierrez, M., Mayordomo, T., & Meléndez, J. C. (2018). Does emotional intelligence predict depressed mood? A structural equation model with elderly people. *Journal of Happiness Studies, 19*, 1713-1726. <https://doi.org/10.1007/s1090>
- Diener, E. (2013). The remarkable changes in the science of subjective wellbeing. *Perspectives on Psychological Science, 8*, 663-666. <https://doi.org/10.1177/1745691613507583>
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71-75. [https://doi.org/10.1207/s15327752jpa4901\\_13](https://doi.org/10.1207/s15327752jpa4901_13)
- Diener, E., Heintzelman, S. J., Kushlev, K., Tay, L., Wirtz, D., Lutes, L. D., & Oishi, S. (2017). Findings all psychologists should know from the new science on subjective well-being. *Canadian Psychology/Psychologie Canadienne, 58*, 87-104. <https://doi.org/10.1037/cap0000063>
- Durlak, J. A., & DuPre, E. P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology, 41*, 327-350. <https://doi.org/10.1007/s10464-008-9165-0>
- Extremera, N., Durán, A., & Rey, L. (2009). The moderating effect of trait meta-mood and perceived stress on life satisfaction. *Personality and Individual Differences, 47*, 116-121. <https://doi.org/10.1016/j.paid.2009.02.007>
- Fernández-Berrocá, P., Extremera, N., & Ramos, N. (2004). Validity and reliability of the Spanish modified version of the Trait Meta-Mood Scale. *Psychological Reports, 94*, 751-755. <https://doi.org/10.2466/pr0.94.3.751-755>
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*, 271-299. <https://doi.org/10.1037/1089-2680.2.3.271>
- Hay, E. L., & Diehl, M. (2011). Emotion complexity and emotion regulation across adulthood. *European Journal of Ageing, 8*, 157-168. <https://doi.org/10.1007/s10433-011-0191-7>
- Hodžić, S., Scharfen, J., Ripoll, P., Holling, H., & Zenasni, F. (2018). How efficient are emotional intelligence trainings: A meta-analysis. *Emotion Review, 10*, 138-148. <https://doi.org/10.1177/1754073917708613>
- Kong, F., Gong, X., Sajjad, S., Yang, K., & Zhao, J. (2019). How is emotional intelligence linked to life satisfaction? The mediating role of social support, positive affect and negative affect. *Journal of Happiness Studies, 20*, 1-12. <https://doi.org/10.1007/s10902-018-00069-4>
- Kong, F., & Zhao, J. (2013). Affective mediators of the relationship between trait emotional intelligence and life satisfaction in young adults. *Personality and Individual Differences, 54*, 197-201. <https://doi.org/10.1016/j.paid.2012.08.028>
- Limonero, J., Tomás-Sábado, J., Fernández-Castro, J., Gómez-Romero, M. J., & Aradilla-Herrero, A. (2012). Estrategias de afrontamiento resilientes y regulación emocional: Predictores de satisfacción con la vida. *Behavioral Psychology, 20*, 183-196.
- Liu, Y., Wang, Z., & Lü, W. (2013). Resilience and affect balance as mediators between trait emotional intelligence and life satisfaction. *Personality and Individual Differences, 54*, 850-855. <https://doi.org/10.1016/j.paid.2012.12.010>
- Lloyd, S. J., Malek-Ahmadi, M., Barclay, K., Fernandez, M. R., & Chartrand, M. S. (2012). Emotional intelligence (EI) as a predictor of depression status in older adults. *Archives of Gerontology and Geriatrics, 55*, 570-573. <https://doi.org/10.1016/j.archger.2012.06.004>
- Lobo, A., Saz, P., & Marcos, G. (2002). *Adaptación del Examen Cognoscitivo Mini-Mental* [Adaptation of Mini-Mental State Examination]. Tea Ediciones.
- Luthar, S. S., Sawyer, J. A., & Brown, P. J. (2006). Conceptual issues in studies of resilience. *Annals of the New York Academy of Sciences, 1094*, 105-115. <https://doi.org/10.1196/annals.1376.009>

- Mayer, J. D., Caruso, D. R., & Salovey, P. (2016). The ability model of emotional intelligence: Principles and updates. *Emotion Review*, 8, 290-300. <https://doi.org/10.1177/1754073916639667>
- Mayer, J. D., & Salovey, P. (1997). What is Emotional Intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Implications for educators* (pp. 3-31). Basic Books.
- Mayordomo-Rodríguez, T., Meléndez-Moral, J. C., Viguer-Segui, P., & Sales-Galán, A. (2015). Coping strategies as predictors of well-being in youth adult. *Social Indicators Research*, 122, 479-489. <https://doi.org/10.1007/S11205-014-0689-4>
- Mayordomo, T., Viguer, P., Sales, A., Satorres, E., & Meléndez, J. C. (2016). Resilience and coping as predictors of well-being in adults. *The Journal of Psychology*, 150, 809-821. <https://doi.org/10.1080/00223980.2016.1203276>
- Meléndez, J. C., Tomás, J. M., & Navarro, E. (2011). Everyday life activities and well-being: Their relationships with age and gender in the elderly. *Anales De Psicología/Annals of Psychology*, 27, 164-169.
- Palomera, R., & Brackett, M. (2006). Frecuencia del afecto positivo como posible mediador entre la inteligencia emocional percibida y la satisfacción vital [Frequency of positive affect as a possible mediator between perceived emotional intelligence and life satisfaction]. *Ansiedad y Estrés*, 12, 231-239.
- Rey, L., Extremera, N., & Sánchez-Álvarez, N. (2017). Clarifying the links between perceived emotional intelligence and well-being in older people: Pathways through perceived social support from family and friends. *Applied Research in Quality of Life*, 14, 221-235. <https://doi.org/10.1007/s1148>
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition Personality*, 9, 185-211.
- Salovey, P., Mayer, J. D., Goldman, S. L., Turvey, C., & Palfai, T. P. (1995). Emotional attention, clarity, and repair: Exploring emotional intelligence using the Trait Meta-Mood Scale. In J. W. Pennebaker (Ed.), *Emotion, Disclosure, & Health* (pp.125-154). American Psychological Association.
- Sánchez-Álvarez, N., Extremera, N., & Fernández-Berrocal, P. (2015). Maintaining life satisfaction in adolescence: Affective mediators of the influence of perceived emotional intelligence on overall life satisfaction judgments in a two-year longitudinal study. *Frontiers in Psychology*, 6, 1892-1901. <https://doi.org/10.3389/fpsyg.2015.01892>
- Sánchez-Álvarez, N., Extremera, N., & Fernández-Berrocal, P. (2016). The relation between emotional intelligence and subjective well-being: A meta-analytic investigation. *Journal of Positive Psychology*, 11, 276-285. <https://doi.org/10.1080/17439760.2015.1058968>
- Sinclair, V. G., & Wallston, K. A. (2004). The development and psychometric evaluation of the Brief Resilient Coping Scale. *Assessment*, 11, 94-101. <https://doi.org/10.1177/10731911032581>
- Steptoe, A., Deaton, A., & Stone, A. A. (2015). Subjective wellbeing, health, and ageing. *The Lancet*, 385, 640-648. [https://doi.org/10.1016/S0140-6736\(13\)61489-0](https://doi.org/10.1016/S0140-6736(13)61489-0)
- Tomás, J. M., Meléndez, J. C., Sancho, P., & Mayordomo, T. (2012). Adaptation and initial validation of the BRCS in an elderly Spanish sample. *European Journal of Psychological Assessment*, 28, 283-289. <https://doi.org/10.1027/1015-5759/a000108>
- Windle, G. (2011). What is resilience? A review and concept analysis. *Review of Clinical Gerontology*, 21, 152-169. <https://doi.org/10.1017/S0959259810000420>
- Zeidner, M., Matthews, G., & Olenik, D. (2016). Cognitive-social sources of wellbeing: Differentiating the roles of coping style, social support and emotional intelligence. *Journal of Happiness Studies*, 17, 2481-2501. <https://doi.org/10.1007/s1090>