

Perceived Emotional Intelligence as a predictor of Depressive Symptoms after a one year follow-up during Adolescence

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Research to date has identified various risk factors in the emergence of depressive disorders in adolescence. There are very few studies, however, which have analyzed the role of perceived emotional intelligence in depressive symptoms longitudinally during adolescence. This work aimed to analyze longitudinal relationships between perceived emotional intelligence and depressive symptoms in adolescence, developing an explanatory model of depression following a one-year follow-up. A longitudinal study was carried out with two waves separated by one year, with a sample of 714 Spanish adolescents. The instruments consisted of self-report measures of depressive symptoms and perceived emotional intelligence. Results underlined gender differences in depressive symptoms and emotional intelligence, and indicated that greater emotional intelligence was associated with a lower presence of depressive symptoms after a one-year follow-up. A multiple partial mediation model was developed to explain longitudinally depressive symptoms based on perceived emotional intelligence skills and depressive symptoms. These contributions underscore the need to design programs to prevent depression in adolescence through the promotion of emotional intelligence.

Keywords: depression, adolescence, emotional intelligence, emotional regulation, longitudinal

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Introduction

The study of emotional intelligence as an important aspect of well-being and coping with daily events has generated considerable interest in recent years (Extremera & Fernandez-Berrocal, 2005). According to Mayer and Salovey (1997), emotional intelligence is a set of skills to process emotional information accurately and efficiently, including the ability to perceive, assimilate, understand and regulate emotions. Among other instruments, a self-report measure called Trait Meta-Mood Scale (TMMS) (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995) was developed to assess individual differences in the perceived emotional intelligence, which represents what individuals know about their own emotional intelligence (Salovey & Mayer, 1990). This self-report specifically evaluates perceived emotional attention, or the perception of the level of attention given to own emotional states; emotional clarity, which is the perception of the degree of understanding of own emotions; and emotional repair, the perceived ability to regulate own emotional states. Greater perceived emotional intelligence is characterized by greater emotional clarity, greater emotional repair and moderate attention to emotions (Salovey et al., 1995). Palmer, Gignac, Bates and Stough (2003) proposed a functional sequence of perceived emotional intelligence, in which enough emotional attention was necessary to perceive clearly the emotions, and the ability to repair negative emotions was not possible unless emotions were experienced with clarity. The relationship between perceived emotional intelligence, assessed with TMMS, and psychological adjustment has been well documented in the adult population, but there are very few studies with adolescent populations (Fernandez-Berrocal, Alcaide, Extremera, & Pizarro, 2006).

Adolescence is a period of special risk for the emergence of the first depressive disorders (Abela & Hankin, 2008). Various longitudinal studies have revealed an increase in the rates of clinical depression between childhood and late adolescence (Costello, Copeland, & Angold, 2011), and it seems that the age of onset of depression occurs between 13-15 years old (Merikangas & Knight, 2009). Furthermore, literature has shown that, also during mid-adolescence, the first gender differences in the risk for depression emerge (Strauman, Costanzo, & Garber, 2011). The presence of depressive symptoms and depressive disorders in girls increases significantly during adolescence. During adolescence, depression has a great impact on school performance and on family and interpersonal relationships (Essau & Chang, 2009), and constitutes an important risk factor for drug abuse (Marmorstein & Iacono, 2011). The dramatic impact that mood disorders have on problems throughout the life span underscores the importance of studying when these disorders arise and what factors explain their development, maintenance or severity.

Some studies have tried to explain adolescent depression following the emotional intelligence model proposed by Mayer and Salovey (1997). In a sample of North American teenagers and undergraduates, Salovey, Stroud, Woolery and Epel (2002) found that lower perceived emotional clarity and emotional repair were cross-sectionally associated with a greater presence of depressive symptoms. Also in the USA, emotional attention and emotional clarity were associated with both anxiety symptoms and depressive symptoms in a sample of undergraduate students (Berenbaum, Bredemeier, Thompson, & Boden, 2012). In a study with Spanish adolescents aged 14 to 19 years old, perceived emotional intelligence was cross-

sectionally linked with emotional adjustment, with the more emotionally intelligent adolescents showing fewer symptoms of anxiety and depression (Fernandez-Berrocal et al., 2006).

In a study with 256, 12-13 year old American teenagers, Stange, Alloy, Flynn and Abramson (2013) found that a clear perception of own emotions interacted with a negative attributional style and experience of stressful life events, in predicting depressive symptoms after a 9-month follow-up. On the other hand, greater emotional attention and lower emotional repair predicted a greater presence of depressive symptoms following a one-year follow-up study with Spanish adolescents (Salguero, Palomera, & Fernandez-Berrocal, 2012). Salguero, Fernandez-Berrocal, Balluerka and Aritzeta (2010) found that girls reported higher emotional attention than boys. They suggested that gender differences in emotion regulation were possibly due to the higher prevalence in girls of emotional problems and the use of ineffective coping strategies, such as rumination (Nolen-Hoeksema, 2012). In another study, Salguero, Extremera and Fernandez-Berrocal (2012) indicated that gender moderated the relationship between emotional intelligence and depression.

Few studies have sought to examine the role of perceived emotional intelligence skills in depressive symptoms during adolescence, as most of the studies have been carried out with undergraduate or general adult population samples. More importantly, there are even fewer longitudinal studies addressing the association between emotional intelligence and depressive symptoms after a follow-up period and examining gender differences. Moreover, no study to date, as far as we know, has developed an explanatory model that integrates the change in depressive symptoms with perceived emotional intelligence skills. The objective of this study therefore is to examine gender differences in depressive symptoms and perceived emotional intelligence; analyze the longitudinal relationships between perceived emotional intelligence and depressive symptoms during adolescence, examining gender effect, and develop a model that integrates perceived emotional intelligence in the explanation of depressive symptoms after a one-year follow-up period, controlling for initial depressive symptoms. A longitudinal study design was carried out with two waves over a one year period.

Method

Participants

A sample of 714 adolescents, aged between 13 and 16 years old (50.7% girls) and enrolled in 19 secondary schools in Andalusia (Southern Spain), participated in this research. The secondary schools represented different educational sectors (public or private), different regions (rural, semi-urban, urban or large city) and different socio-economic levels. In each school, participating classes were randomly selected. Although at the beginning of the study, the total sample was composed by 980 adolescents, up to the 73% of this initial sample maintained its involvement in the follow up phase of the study.

Instruments and variables

Perceived emotional intelligence. A reduced and adapted version of the Spanish Trait Meta-Mood Scale (TMMS) was administered (Fernandez-Berrocal, Extremera, & Ramos, 2004; Salovey et al., 1995). This version is composed of 12 items. The items are divided into 3 subscales with 4 items in each,

corresponding with the three perceived skills in emotional intelligence, namely emotional attention (how often participant pays attention to own emotions), emotional clarity (how often participant perceives with clarity the emotions he/she feels) and emotional repair (how often participant is able to repair his/her negative emotions). A high score in emotional clarity and emotional repair indicates a greater ability to perceive the emotions clearly and to repair negative emotions, while high attention to own emotions is an indicator of poor emotional intelligence. Each of the subscales showed excellent psychometric properties, with a notable internal consistency reliability (emotional attention $\alpha=.91$, emotional clarity $\alpha= .84$, and emotional repair $\alpha=.86$).

Depressive symptoms. We used the shortened version of the Child Depression Inventory (Kovacs, 2001), in its adaptation to Spanish by Del Barrio, Roa, Olmedo and Colodron (2002). This short scale is composed of 10 items to evaluate the presence and severity of depressive symptoms in children and adolescents. This instrument is valid for research purposes and may be used instead of the longer version (Kovacs, 2001). It presented a good internal consistency, with Cronbach's α values of .70 in each wave of the study.

Piloting

The first assessment of the study was conducted in April and May of 2011, while the second one was carried out in April and May of 2012. For data collection, a paper-based self-report was individually and anonymously administered in each selected classroom. Two pilot studies were conducted to test the psychometric properties of the instruments. The first of these pilot studies was carried out in October and November of 2010 with a sample of 191 adolescents, while the second one was performed in January and February of 2011 with the participation of 266 adolescents. In the first pilot study the Spanish version of TMMS was adapted to an adolescent sample. This scale was also reduced from 24 items to only 12, by selecting indicators with the highest saturations in the factor analysis. This 12-item scale of perceived emotional intelligence showed a notable internal consistency both overall and in each subscale (α above .75). In the second pilot study, this 12-item version scale of perceived emotional intelligence was administered jointly with the Brief Child Depression Inventory. Both the TMMS (α values above .84) and Brief Child Depression Inventory (Cronbach's α of .76) showed excellent internal consistency. Further information of these pilot studies is found in Gomez-Baya (2014).

Data analysis

Gender differences in perceived emotional intelligence skills and depressive symptoms were analyzed making use of T tests. The analysis of the longitudinal relationship between perceived emotional intelligence and depressive symptoms was carried out through various steps, including a correlational analysis of the relationship between the scores on perceived emotional intelligence and depressive symptoms in each separate wave, analysis of the change in variables from first to second wave through repeated measures variance analyses, controlling for gender effect, and analysis of the differences in depressive symptoms in the first and second waves depending on the level in each perceived emotional intelligence scale. Three groups

were created (based on percentile 33 and percentile 66) reflecting a low perceived ability, a medium perceived ability and a high perceived ability. Analyses of variance calculated differences among these groups in depressive symptoms means at waves 1 and 2, controlling for gender effect. Finally, repeated measure variance analyses were used to explore whether the change in depressive symptoms depends on the initial levels of perceived emotional intelligence. In order to develop a model that integrates perceived emotional intelligence in the explanation of depressive symptoms, a multiple partial mediation model was tested, following indications by Preacher, Rucker and Hayes (2007) and based on stepwise regression analysis (Baron & Kenny, 1986). This model examined the partial mediational role of perceived emotional intelligence (attention, clarity and repair) in the relationship between depressive symptoms at wave 1 and wave 2 respectively. Moreover, the three perceived emotional intelligence scales composed another partial mediation model, in which the relationship between attention and repair was partially mediated by emotional clarity. Thus, this model established that it is necessary to pay enough attention to emotions in order to perceive them clearly and to be able to repair them, as well as being important to perceive with clarity the emotions in order to repair them adequately. These analyses were conducted using a macro for SPSS 21.0 called Process (Hayes, 2013).

Results

Descriptive statistics and gender differences in perceived emotional intelligence and depressive symptoms

Table I shows descriptive statistics of depressive symptoms and perceived emotional intelligence, in both waves by gender. Girls presented higher means in emotional attention at wave 1 [$t(712) = -3.28, p = .001$], and at wave 2 [$t(712) = -4.37, p < .001$]. On the other hand, boys presented higher scores in emotional repair at wave 1 [$t(712) = 3.93, p < .001$], wave 2 [$t(712) = 2.98, p = .003$]. Girls showed higher scores on depressive symptoms than boys, both at wave 1 [$t(712) = -3.99, p < .001$], and wave 2 [$t(712) = -4.18, p < .001$]. No gender differences were found in perceived emotional clarity, neither at wave 1 [$t(712) = .85, p = .394$], nor at wave 2 [$t(712) = 1.87, p = .062$].

Bivariate correlations and change in study variables after the follow-up

The relationship between perceived emotional intelligence and depressive symptoms was examined through bivariate correlational analysis and several analyses of variance (Table II). It is noteworthy that the scores on emotional attention at waves 1 and 2 are positively associated with depressive symptoms levels at wave 1 and 2 respectively, while the scores in clarity and repair in both waves are negatively correlated with depressive symptoms in both assessments, respectively. Furthermore, variables in each separate wave are positively correlated, so that higher levels of depressive symptoms at wave 1 are associated with higher levels of symptoms at wave 2, and lower levels of depressive symptoms at wave 1 are correlated with lower levels at the second wave. Also a higher score on emotional intelligence skills is associated with higher values one year later, and vice versa.

Table I: Descriptive statistics of study variables in both waves, by gender.

	Wave 1			Wave 2		
	Gender	Mean	Standard Deviation	Gender	Mean	Standard Deviation
Depressive Symptoms	Boys	3.03	2.67	Boys	3.24	2.64
	Girls	3.85	2.84	Girls	4.12	2.92
	Total	3.44	2.78	Total	3.69	2.82
Emotional Attention	Boys	12.80	4.60	Boys	12.52	4.40
	Girls	13.89	4.23	Girls	13.88	3.95
	Total	13.35	4.44	Total	13.21	4.23
Emotional Clarity	Boys	14.41	3.85	Boys	14.05	3.80
	Girls	14.17	3.59	Girls	13.55	3.36
	Total	14.29	3.72	Total	13.79	3.59
Emotional Repair	Boys	14.61	4.11	Boys	14.09	4.18
	Girls	13.40	4.09	Girls	13.15	4.26
	Total	14.00	4.14	Total	13.61	4.25

Table II: Pearson bivariate correlations among study variables in each wave.

	1	2	3	4	5	6	7	8
1. Depressive Symptoms Wave 1	1							
2. Emotional Attention Wave 1	.12**	1						
3. Emotional Clarity Wave 1	-	.34***	1					
4. Emotional Repair Wave 1	-	.15***	.42***	1				
5. Depressive Symptoms Wave 2	.58***	.12**	-	-	1			
6. Emotional Attention Wave 2	.17***	.50***	.12**	.01	.23***	1		
7. Emotional Clarity Wave 2	-	.10**	.35***	.26***	-	.19***	1	
8. Emotional Repair Wave 2	-	-.01	.15***	.40***	-	.12**	.41***	1

Note. *** $p < .001$, ** $p < .01$, * $p < .05$

The results show, at follow up stage, a significant decrease in the perceived clarity [$F(1, 713) = 10.10$, $p = .002$], and repair [$F(1, 713) = 5.11$, $p = .024$], and a significant increase in depressive symptoms [$F(1, 713) = 6.34$, $p = .012$]. No remarkable change was detected in emotional attention [$F(1, 713) = .76$, $p = .384$]. Moreover, no significant interactions were found between gender and change in emotional attention [$F(1,$

713)=.70, $p=.404$], in emotional clarity [$F(1, 713)=.72, p=.398$], and in emotional repair [$F(1, 713)=.60, p=.440$], respectively. Similarly, no significant interaction was found between gender and change in depressive symptoms [$F(1, 713)=.07, p=.796$]. Furthermore, gender showed significant inter-subject effects on emotional attention [$F(1, 713)=19.31, p<.001$], emotional repair [$F(1, 713)=17.14, p<.001$], and depressive symptoms [$F(1, 713)=21.20, p<.001$], respectively. No inter-subject effect was found by gender on emotional clarity [$F(1, 713)=2.71, p=.100$].

Change in depressive symptoms by perceived emotional intelligence

Table III shows depressive symptoms means for each wave by gender according to the level of perceived emotional intelligence at the beginning of the study. It was found that greater emotional attention at wave 1 was associated with more depressive symptoms both cross-sectionally [$F(2, 712)=9.36, p<.001, \eta^2_p=.03$], and one year later [$F(2, 712)=6.92, p=.001, \eta^2_p=.02$]. Gender interacted with emotional attention to explain depressive symptoms at wave 1 [$F(2, 712)=3.29, p=.038, \eta^2_p=.01$], with emotional attention significantly explained by depressive symptoms in girls [$F(2, 712)=10.37, p<.001, \eta^2_p=.06$] but not in boys [$F(2, 712)=.56, p=.573$]. Gender did not interact with emotional attention at time 1 to predict depressive symptoms one year later [$F(2, 712)=1.80, p=.166$]. In both boys and girls, a greater emotional clarity was associated with lower presence of symptoms at time 1 [$F(2, 712)=22.09, p<.001, \eta^2_p=.06$], and time 2 [$F(2, 712)=13.67, p<.001, \eta^2_p=.03$] respectively. Gender did not present any significant interaction with initial emotional clarity to explain depressive symptoms neither at wave 1 [$F(2, 712)=.57, p=.568$], nor at wave 2 [$F(2, 712)=.11, p=.893$]. Finally, greater emotional repair was found to be associated with lower presence of depressive symptoms at the beginning of the study [$F(2, 712)=34.15, p<.001, \eta^2_p=.09$], and at the one-year follow-up [$F(2, 712)=21.57, p<.001, \eta^2_p=.06$], in both girls and boys. Gender did not interact with initial emotional repair to predict depressive symptoms neither at wave 1 [$F(2, 712)=1.77, p=.172$], nor at wave 2 [$F(2, 712)=.10, p=.903$]. Repeated measure variance analyses contrasted the effect of each perceived emotional intelligence subscale at wave 1 on the increase in depressive symptoms at follow-up. Results indicated that the initial levels of emotional attention [$F(2, 712)=2.77, p=.063$], emotional clarity [$F(2, 712)=2.99, p=.051$] and emotional repair [$F(2, 712)=1.09, p=.335$], did not explain the increase in depressive symptoms.

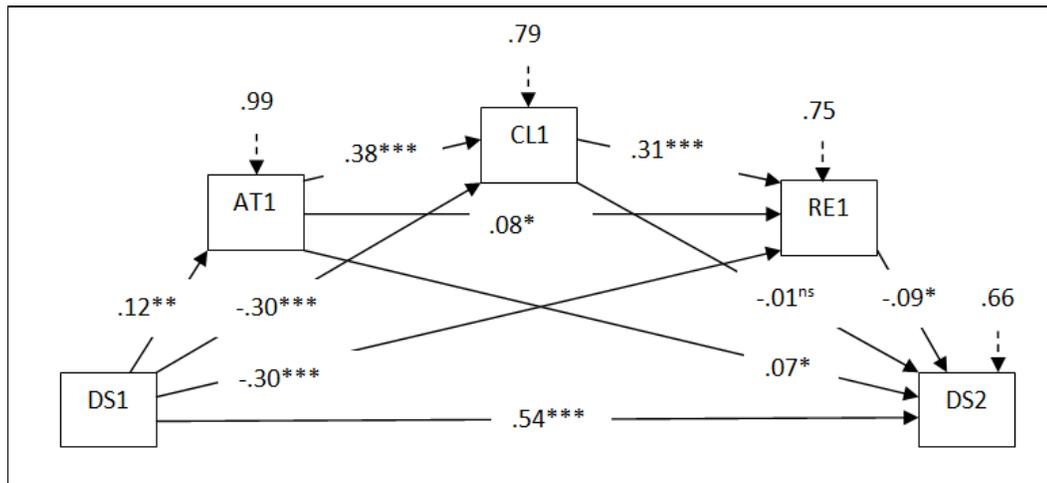
Multiple partial mediation model

A multiple partial mediation model was developed to explain depressive symptoms at the end of the study, taking into account initial depressive symptoms and initial perceived emotional intelligence. The model tested the relationship between depressive symptoms at wave 1 and depressive symptoms at wave 2 directly, [$F(1, 712)=365.55, p<.001, R^2=.34$], partially mediated by perceived emotional intelligence at wave 1. As Figure 1 illustrates, the model indicates that depressive symptoms at wave 1 were positively related with emotional attention at wave 1, negatively associated with emotional clarity and emotional repair at wave 1, and positively related with depressive symptoms at the end of the study. The three perceived emotional intelligence subscales at wave 1 were found to be interrelated to another partial mediation model in which

attention was positively related to repair, directly and indirectly through emotional clarity. Emotional attention was explained by depressive symptoms at wave 1, reaching a value of $R^2=.02$, $F(1, 712)=11.13$, $p=.001$. Emotional clarity was explained by depressive symptoms at wave 1 and by emotional attention [$F(2, 711)=93.96$, $p<.001$, $R^2=.21$]. Moreover, perceived emotional repair presented a percentage of explained variance of 25.2% from the initial values of depressive symptoms, emotional attention and emotional clarity [$F(3, 710)=79.59$, $p<.001$]. Finally, it is significant that depressive symptoms at wave 2 were explained by depressive symptoms at wave 1, emotional attention and emotional repair. The results indicated that higher emotional attention and reduced ability to repair negative emotions, in addition to greater presence of depressive symptoms at wave 1, were associated with greater presence of depressive symptoms at follow-up. Emotional clarity was not a significant explanatory factor of depressive symptoms at time 2. In this multiple partial mediation model, 34.9% of the explained variance was found in the depressive symptoms at the end of study [$F(4, 709)=94.82$, $p<.001$].

Table III: Means in depressive symptoms at wave 1 and wave 2 according to level of perceived emotional intelligence at wave 1, by gender.

Perceived Ability	Group	Depressive Symptoms Wave 1			Depressive Symptoms Wave 2		
		Boys	Girls	Total	Boys	Girls	Total
Emotional Attention	33%	3.01	3.25	3.12	3.06	3.48	3.26
	Lower	(2.94)	(2.39)	(2.70)	(2.43)	(2.47)	(2.46)
	33%	2.81	3.39	3.09	3.05	4.51	3.75
	Medium	(2.01)	(2.29)	(2.16)	(2.53)	(3.48)	(3.10)
	Higher	(2.71)	(3.27)	(3.12)	(2.97)	(2.91)	(2.96)
Emotional Clarity	33%	3.95	4.53	4.25	3.73	4.69	4.23
	Lower	(3.15)	(3.20)	(3.18)	(3.12)	(3.23)	(3.21)
	33%	2.73	3.43	3.07	2.97	3.66	3.31
	Medium	(2.05)	(1.99)	(2.04)	(2.26)	(2.55)	(2.42)
	Higher	(2.13)	(2.61)	(2.43)	(2.21)	(2.64)	(2.47)
Emotional Repair	33%	4.36	4.50	4.44	4.17	4.83	4.55
	Lower	(3.64)	(3.09)	(3.32)	(3.20)	(3.41)	(3.34)
	33%	2.92	4.03	3.50	3.22	4.06	3.66
	Medium	(1.81)	(2.71)	(2.39)	(2.22)	(2.54)	(2.42)
	Higher	(1.79)	(2.28)	(2.03)	(2.23)	(2.21)	(2.23)



Note 1. DS1: Depressive Symptoms at Wave 1; AT1: Emotional Attention at Wave 1; CL1: Emotional Clarity at Wave 1; RE1: Emotional Repair at Wave 1; DS2: Depressive Symptoms at Wave 2.

Note 2. *** p<.001, ** p<.01, * p<.05.

Figure 1: Multiple partial mediation model of perceived emotional intelligence at wave 1 and depressive symptoms at waves 1 and 2.

Discussion

The finding that girls presented higher emotional attention and lower emotional repair than boys is consistent with Salguero et al. (2010), who found that girls reported higher emotional attention than boys. Following the explanation given by these authors, these differences can be due to a higher prevalence of emotional problems and the use of depressive rumination, as demonstrated Nolen-Hoeksema (2012). Girls also showed higher rates of depressive symptoms than boys, which is in the line with the work by Strauman et al. (2011) on gender differences in depression during adolescence.

Secondly, the study found a decrease in emotional clarity and repair, and an increase in depressive symptoms at follow-up. This is consistent with previous studies, such as Costello et al. (2011) and Merikangas and Knight (2009), which found a significant increase in depressive symptoms and depressive disorders during adolescence. In contrast, our data did not show an increase in depressive symptoms by gender; it seems that gender differences were already present at the beginning of the study and remained at follow-up. Furthermore, greater perceived emotional intelligence at the first wave was associated with lower depressive symptoms cross-sectionally and one year later. Thus, those adolescents who showed lower emotional attention, higher emotional clarity and higher ability to repair negative emotional states at the beginning of the study, presented fewer depressive symptoms at the beginning of the study and one year later. These cross-sectional and longitudinal associations are in line with previous studies, such as Fernandez-Berrocal et al. (2006) and Salguero, Palomera and Fernandez-Berrocal (2012), thus providing greater empirical support for such conclusions. In addition, these longitudinal associations between perceived emotional intelligence and depressive symptoms were found in both boys and girls, without any significant interaction with gender. This conclusion contradicts the results by Salguero, Extremera and Fernandez-Berrocal (2012) on the moderating role of gender in the relationship between emotional intelligence and

depression. This contradiction can be explained by the use of different methods of assessment of emotional intelligence.

Thirdly, the multiple partial mediation model indicated that depressive symptoms at follow-up can be explained by initial scores in depressive symptoms, initial emotional attention and initial emotional repair. Consequently, a greater presence of depressive symptoms at wave 1 is associated with a greater presence of depressive symptoms at wave 2 directly and partially mediated by high initial emotional attention and reduced initial emotional repair. Emotional clarity was not a significant predictor of depressive symptoms at follow-up one year later, but had a partial mediator role in the relationship between emotional attention and emotional repair. Thus, moderate attention to emotions is necessary to reach a clear understanding of own emotions, and to repair negative emotions. No study to date, as far as we know, has tested an explanatory model to explain depressive symptoms one year later based on perceived emotional intelligence and controlling for initial depressive symptoms. This model has integrated the longitudinal associations between emotional intelligence and depressive symptoms during adolescence already pointed out in previous studies, such as Stange et al. (2013) and Salguero, Palomera and Fernandez-Berrocal (2012). The partial mediation suggested that higher depressive symptomatology at wave 1 was associated with lower perceived emotional intelligence, which in turn predicted higher depressive symptoms one year later. This lower perceived emotional intelligence could be explained by low self-efficacy in emotional processing as a result of maladaptive coping strategies. Consequently, reduced perceived emotional intelligence would contribute to greater presence of depressive symptoms at follow-up because of the reduction in emotional self-efficacy and the strengthening of maladaptive coping strategies.

Although this study led to various interesting findings, particularly the development of the multiple mediation model, a number of limitations need to be considered. Since this study followed a descriptive, longitudinal design rather than an experimental one, causal relationships cannot be established among variables; conclusions should be based on the relationships between antecedents and consequences. Another possible limitation could be the use of self-reports as they provide a subjective or perceived measure of the extent in which teenagers considered themselves emotionally intelligent. The recent validation of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) which provides a performance measurement of emotional intelligence, should address this issue (Rivers, Bracket, Kings, Mayer, Caruso, & Salovey, 2012). Furthermore, it is also true that the administered self-report has shown excellent psychometric properties and, due to its simplicity and brevity, it has allowed the evaluation of a large sample. Additionally, there is evidence that indicates that both subjective and performance measures are significantly correlated (Christiansen, Janovic, & Siers, 2010).

Overall, this study has made a number of contributions to the literature, indicating that greater emotional intelligence is associated with lower presence of depressive symptoms both cross-sectionally and longitudinally; that a multiple partial mediation model can explain depressive symptoms longitudinally based on perceived emotional intelligence and depressive symptoms at the beginning of the study. These conclusions, together with the increase in depressive symptoms during adolescence, underline the need to design programs to prevent depression in adolescence through the promotion of adaptive emotional skills. A

large number of interventions under the umbrella of Social and Emotional Learning (SEL) have collected great empirical support. A meta-analysis of SEL programmes concluded that such programmes are effective in the development of emotional and social skills, the improvement of academic performance and the development of healthy attitudes and behaviours (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger 2011). The design and implementation of universal, school-based interventions is highly recommended, because schools are an environment in which children and adolescents spend several hours a day and they provide the appropriate conditions for a program implementation (Seligman, Ernst, Gillham, Reivich, & Linkins, 2009).

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