

Perceived Emotional Intelligence, Self-Esteem and Life Satisfaction in Adolescents*

Inteligencia Emocional Percibida, Autoestima y Satisfacción con la Vida en Adolescentes

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Abstract. The present study examined the relationship between perceived emotional intelligence, self-esteem and life satisfaction in a sample of 316 Spanish adolescents (179 females and 137 males), ranging in age from 14 to 18. Demographic information was collected, along with data through the use of three self-report measures: the Trait Meta-Mood Scale, the Rosenberg Self-Esteem Scale and the Satisfaction with Life Scale. As expected, perceived emotional dimensions, particularly mood clarity and repair, showed positive associations with life satisfaction. Self-esteem also correlated significantly and positively with levels of adolescents' satisfaction with life. More interestingly, results of structural equation modeling indicated that mood clarity and emotional repair had a significant direct and indirect link (via self-esteem) with life satisfaction in adolescents. The present study contributes to an emerging understanding of the underlying process between perceived emotional intelligence and life satisfaction. Our findings encourage moving beyond the examination of direct association between perceived emotional intelligence and life satisfaction and focusing on the role of potential mechanisms such as self-esteem involved in the link between perceived emotional intelligence and life satisfaction in adolescents. Implications of the present findings for future research are discussed, as well as potential interventions for increasing subjective well-being in adolescents.

Keywords: adolescents, life satisfaction, perceived emotional intelligence, self-esteem.

Resumen. El presente estudio examinó la relación entre inteligencia emocional percibida, autoestima y satisfacción vital en una muestra de 316 adolescentes españoles (179 mujeres y 137 hombres), de edades comprendidas entre los 14 y 18 años. Junto con los datos demográficos se recogió información mediante tres medidas auto-informadas: la escala de meta-cocimiento de los estados emocionales, la escala de autoestima de Rosenberg y la escala de satisfacción vital. Como esperamos, las dimensiones emocionales, especialmente claridad y reparación emocional, mostraron una asociación positiva con la satisfacción vital. Autoestima también correlacionó significativa y positivamente con los niveles de satisfacción vital de los adolescentes. Más interesante fueron los resultados del modelo de ecuaciones estructurales que indicaron que claridad y reparación emocional tenían un efecto directo pero también un vínculo indirecto (vía autoestima) con la satisfacción vital de los adolescentes. El presente trabajo contribuye a la mejor comprensión de los procesos subyacentes entre la inteligencia emocional percibida y la satisfacción vital. Nuestros hallazgos ponen de manifiesto la necesidad de ir más allá del examen de las asociaciones directas entre inteligencia emocional percibida y satisfacción vital centrándonos en el posible papel de otros mecanismos potenciales tales como la autoestima implicados en el vínculo entre inteligencia emocional percibida y satisfacción vital en adolescentes. Se discuten diversas implicaciones de estos hallazgos para futuras investigaciones así como posibles intervenciones dirigidas a incrementar el bienestar de los adolescentes.

Palabras clave: adolescentes, autoestima, inteligencia emocional percibida, satisfacción vital.

Individual differences in emotional intelligence (EI) have been the subject of a great deal of research throughout the last two decades (Mayer, Roberts, &

Barsade, 2008). Much of this research has been interested in studying emotional abilities as predictors of psychological well-being, health and interpersonal functioning (Heck & Oudsten, 2008). Accordingly, numerous studies have focused mainly on the role that EI plays in an individual's subjective emotional reactions when facing stressful encounters and how these emotional abilities might influence subjective well-being (Salovey, Mayer, Caruso, & Yoo, 2009).

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EI is defined as: the ability to accurately perceive, appraise and express emotions; the ability to access or generate feelings, or both, when they facilitate thought; the ability to understand emotions and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth (Mayer & Salovey, 1997). The authors propose that individuals vary in their ability to process information of an emotional nature and in their ability to relate emotional processing to a wider cognition. According to this idea, those individuals who are able to understand and regulate their emotions should be able to generally maintain a better outlook on life and experience better psychological well-being (Heck & Oudsten, 2008; Salovey, 2001).

The concept of EI has been theorized as being critical for effective functioning and providing enhanced personal well-being and growth (Mayer & Salovey, 1997). Although attempts to measure emotional intelligence have been numerous and there have been some important advances in the use of ability measures, Salovey and Colbs. developed an earlier self-report approach to assess relevant aspects of individuals' perception of their emotional competencies (Mayer & Stevens, 1994; Salovey, Mayer, Goldman, Turvey, & Palfai, 1995). One of the most widely used self-report measures with regard to EI is the Trait Meta-Mood Scale (TMMS). This measure taps into what researchers have termed Perceived Emotional Intelligence, or the knowledge individuals have about their own emotional abilities as opposed to actual capacity or capacity of mental abilities (Salovey, Bedell, Detweiler, & Mayer, 1999; Salovey, Stroud, Woolery, & Epel, 2002). In particular, the TMMS is a measure of beliefs concerning one's own emotional Attention (perceived attention paid to one's own emotional states), Clarity (perceived understanding of one's emotional states), and emotional Repair (perceived ability to regulate one's emotional states). These meta-mood dimensions have been suggested to reflect a three-phase functional sequence (Martínez-Pons, 1997; Salguero, Extremera, & Fernández-Berrocal, submitted). Specifically, it is assumed that (1) some degree of attention to feelings is needed (2) for a clear understanding of emotions and, consequently, (3) that the capacity to repair negative moods and emotions would not be possible without some level of emotional clarity. Evidences for this proposed functional sequence have been found using path analytic methodology (Martínez-Pons, 1997; Palmer, Gignac, Bates, & Stough, 2003).

With respect to predictive validity, growing empirical evidences have showed that TMMS is associated with higher life satisfaction (Martínez-Pons, 1997), better subjective happiness (Extremera, Salguero, & Fernández-Berrocal, 2011), greater optimism (Extremera, Durán, & Rey, 2007), increased self-esteem (Schutte, Malouff, Simunek, Hollander, & McKenley,

2002), use of more adaptive coping strategies and higher social problem-solving ability (Saklofske, Austin, Galloway, & Davidson, 2007; Pena, Extremera, & Rey, 2011) and better outcomes with regard to one's health and meaningful life (Extremera & Fernández-Berrocal, 2006; Shulman & Hemenover, 2006).

There is also extensive literature demonstrating that perceived emotional intelligence measured by the TMMS is related to a number of aspects of positive well-being (Fernández-Berrocal & Extremera, 2008). For example, Palmer, Donaldson, and Stough (2002) examined the predictive validity of components of TMMS concerning prediction of life satisfaction over and above both positive and negative affect. The authors found that the Clarity subscale accounted for further variance in life satisfaction not accounted for by positive and negative affect. Other studies have found that emotional repair is the most important predictor of emotional well-being (Thompson, Waltz, Croyle, & Pepper, 2007). Similar findings suggest significant associations between perceived emotional intelligence measured by the TMMS and psychological well-being independent from well-known mood state constructs and personality traits in college students (Extremera & Fernández-Berrocal, 2005; Shulman & Hemenover, 2006).

Despite the above findings about emotional abilities and well-being in adults, the empirical research in EI pertaining to adolescence is still in an early stage. Few studies have examined the role of EI in the wide spectrum of positive and negative functioning outcomes in adolescence. However, some preliminary evidences suggest that EI is also critical for effective emotional functioning in youth and adolescence. Using adolescents as a sample, some research has reported that those adolescents with high perceptions of emotional abilities assessed by TMMS (in particular, high mood clarity and emotional repair) generally show higher life satisfaction and lower perceived stress after the effect of dispositional optimism/pessimism were statistically controlled for (Extremera et al., 2007). Similar results have been obtained between TMMS dimensions and reduced levels of anxiety and depression in adolescents (Fernández-Berrocal, Alcaide, Extremera, & Pizarro, 2006; Salguero, Palomera, & Fernández-Berrocal, in press; Williams, Fernández-Berrocal, Extremera, Ramos-Díaz, & Joiner, 2004).

Beyond this direct link between EI and well-being, many potential mechanisms have been theorized through which EI might work to enhance well-being and adaptive coping (Matthews, Zeidner, & Roberts, 2002; Rey & Extremera, in press). One characteristic considered as a relevant mediator might be self-esteem. Self-esteem is described as a global feeling of self-worth or adequacy as a person (Baumeister, 1993), or generalized feelings of self-acceptance, goodness and self-respect (Rosenberg, 1965). Numerous evidences exist that self-esteem is positively related to emotional

functioning, including several predictors of life satisfaction (Moreno, Estévez, Murgui, & Musitu, 2009) and subjective happiness (Lyubomirsky, Tkach, & DiMatteo, 2006), or is even negatively related to psychological maladjustment indicators such as depression (Tennen & Herzberger, 1987) or anxiety in response to acute stressors (Greenberg et al., 1992). In general, believing in oneself as good and worthy provides a setting for effective personal functioning in young adults and adolescents. In addition, some support has been found for the mediational role of self-esteem in studies on the relationship between personality traits and dimensions with similar conceptual content such as life satisfaction, general well-being, depression or social support (Chang, 2001; Çivitci & Çivitci, 2009; Estévez, Murgui, Musitu, & Moreno, 2008).

As suggested by Schutte et al. (2002), individuals with higher EI use their ability to understand and regulate emotions to resist situational threats. Theoretically, these individuals should be better able to maintain a positive mood when appropriate, and effectively repair a distressed mood when faced with negative events. This emotional ability may enable them to maintain higher levels of self-esteem and perception of self-worth or value. In line with this view, Schutte et al. (2002) found that higher EI was associated with an increase in positive mood state and higher state self-esteem. Individuals with higher EI also showed less of a decrease in positive mood and self-esteem after a negative state. Similarly, Salovey et al., (2002; Study 1) found in a cross-sectional study that perceived ability to attend to moods and, specifically, mood clarity and skills at mood repair, were positively associated with self-esteem. In samples concerning adolescents, several studies have corroborated these findings in which high scores in perceived emotional intelligence were correlated positively to perceptions of self-worth (Ciarrochi, Chan, & Bajgar, 2001). In particular, mood clarity and emotional repair showed higher correlations with self-esteem (Fernández-Berrocal et al., 2006).

Therefore, in analyzing a mediation model in which high self-esteem is conceptually viewed as a causal mechanism accounting for the link between perceived emotional intelligence and life satisfaction, one may consider how, as emotionally intelligent adolescents believe they have the resources to employ the strategies necessary to repair negative moods as well as to maintain positive moods when appropriate, they might reflect a higher sense of self-worth and self-respect. This, in turn, might lead to increased satisfaction in different areas of life (e.g., family, friends and living environment). Accordingly, Bednar, Wells, and Peterson (1989) have suggested that one's level of self-esteem is the outcome of a self-evaluative affective process. In particular, when people feel they are doing well, they feel good about themselves and have higher self-esteem. The findings of Schutte et al. (2002) sug-

gest that abilities to understand and regulate moods may, in part, facilitate the positive affect necessary for this self-evaluative process. Hence, the assessment of self-esteem as potential mediator of the link between perceived emotional intelligence and life satisfaction among adolescents seems to be warranted.

Given the above considerations, the purpose of the present study was twofold. The first purpose was to examine the relations between perceived emotional intelligence (using TMMS), self-esteem and life satisfaction in a sample of Spanish adolescents. Second, consistent with the proposed mediation model, we examine the extent to which self-esteem might mediate the influence of perceived emotional intelligence on life satisfaction. Given previous research, we expected that TMMS dimensions are significantly and positively correlated with self-esteem and life satisfaction. Also, consistent with earlier research, it was expected to find a significant association between self-esteem and life satisfaction. Finally, consistent with the proposed mediation model, it was expected that the relation between perceived emotional intelligence (in particular the most important predictor dimensions: mood clarity and emotional repair), on life satisfaction was mediated by levels of adolescents' self-esteem.

Method

Participants

The sample for this study consisted of 316 adolescents of the province of Málaga (Spain) (179 females and 137 males) recruited from different participating high schools. The ages of participants ranged from 14 to 16 years ($M = 16.35$, $S.D = 1.33$).

Procedure

Participants were asked to take part in a social research "examining the link between mood states and personality". The assessment was carried out in classrooms during the normal school schedule, with guarantees of the study being purely voluntary and anonymous and under the approval of the school authorities. The questionnaires were administered in paper-and-pencil format with instructions given in writing. No incentive was offered for participation.

Materials

Trait Meta-Mood Scale (TMMS; Salovey et al., 1995). The TMMS is considered a proxy for perceived emotional intelligence (Salovey et al., 2002). It evaluates the extent to which people attend to and value their feelings (Attention), feel clear rather than con-

fused about their feelings (Clarity) and use positive thinking to repair negative moods (Repair). The shortened Spanish version (Fernández-Berrocal, Extremera, & Ramos, 2004) includes 24 items from the original version (8 for each subscale). This Spanish version has shown acceptable internal consistency and satisfactory test-retest reliability (Fernández-Berrocal et al., 2004).

Rosenberg Self-esteem Scale (RSES; Rosenberg, 1965). Self-esteem was assessed using the Rosenberg Self-Esteem Scale (RSES), which comprises 10 statements, 5 positively worded and 5 negatively worded. Participants rate the extent to which they agree with each statement on a four-point Likert scale. Total scores are obtained by summing all responses (after reverse-scoring) and range from 10 to 40, with high scores indicating high self-esteem. RSES has shown evidences of its adequate reliability in its initial validation with regard to adolescents (Rosenberg, 1965). In addition, for this study, we used the well-validated Spanish version (Martín-Albo, Núñez, Navarro, & Grijalvo, 2007).

Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). This scale comprises five self-referencing statements on perceived global life satisfaction. Participants completed the Spanish version of the Satisfaction with life Scale (Atienza, Balaguer, & Garcia-Merita, 2003). Both English and Spanish versions have shown evidence for discriminant validity and appropriate internal consistency (Diener et al., 1985; Atienza et al., 2003).

Statistical Analysis

Descriptive statistics were used to explain the characteristics of the participants. Cronbach's alpha coefficients were calculated for each scale. To address the first specific aim, analysis of the relationship between different variables, we used descriptive statistics and Pearson zero-order correlations. For the second specific aim, the establishment of evidence for the proposed mediation model, a structural equation modeling was used.

Results

Descriptive analyses

The zero-order correlations among the study variables and their means, standard deviations, and alpha coefficients are shown in Table 1.

As the table shows, attention to feelings was positively related to other TMMS dimensions and self-esteem. On the other hand, scores on the clarity and repair dimensions were significantly related in the expected direction to scores on self-esteem and life sat-

Table 1. Descriptives, internal reliabilities, and correlations for all study measures

	1	2	3	4	5
1. Attention to feelings	—				
2. Mood clarity	.19*	—			
3. Emotional repair	.12*	.23**	—		
4. Self-esteem	-.11*	.37**	.27**	—	
5. Life satisfaction	-.00	.34**	.32**	.59**	—
Mean	3.48	3.37	3.55	2.92	4.76
Standard deviation	.62	.61	.66	.47	1.23
Alpha	.79	.78	.77	.82	.81

N = 316

** $p < .01$; * $p < .05$.

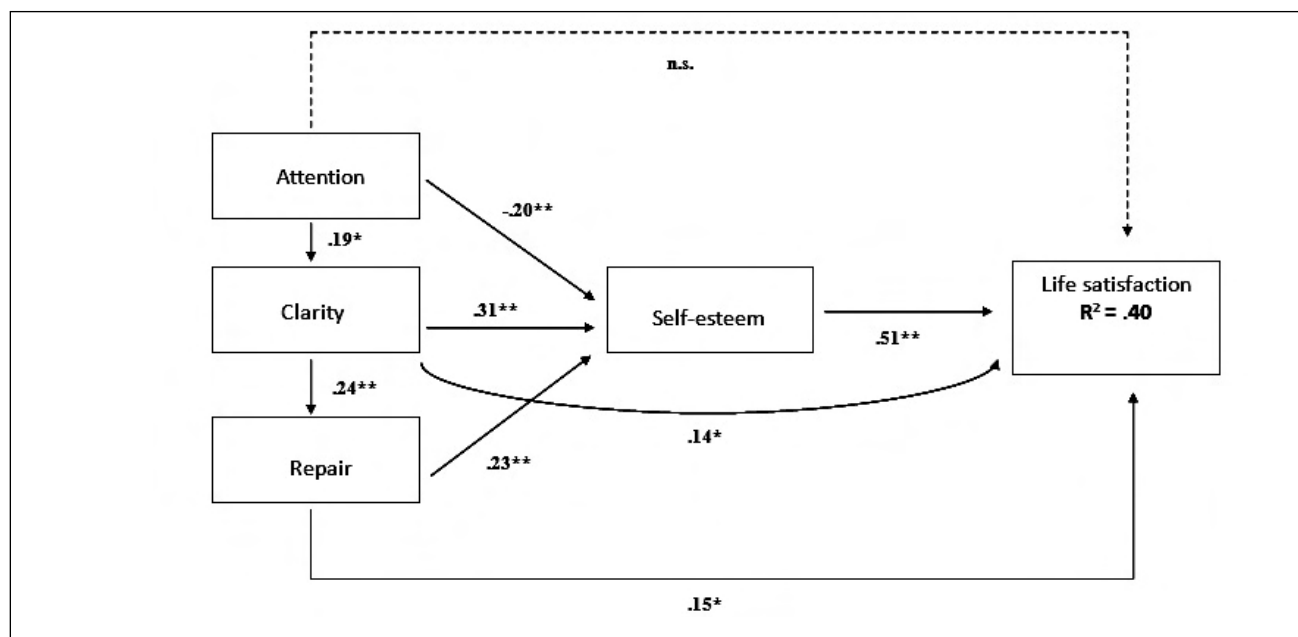
isfaction. Finally, self-esteem was significantly related in the expected direction to life satisfaction in our sample.

Structural equation modeling

Next, we used structural equation modeling (SEM) to test the hypothesis that self-esteem mediates the relationship between TMMS dimensions and life satisfaction. One advantage of SEM is that it corrects for measurement error in the constructs of interest. The SEM was tested with AMOS 18. Due to the data showing multivariate normality (Mardia's normalized coefficient = 1.47), maximum likelihood estimation was used to evaluate the fit of the measurement and the structural models for to the empirical data. Acceptable model fit is generally indicated by NFI, and CFI values exceeding .95. For the RMSEA, values below .08 are considered a reasonable fit, whereas values below .05 are indicative of good fit (Kelloway, 1998). We arrived at the most parsimonious model by omitting the non-significant path coefficients (Bentler & Mooijart, 1989). The squared multiple correlation (R^2) associated with satisfaction with life was used to evaluate the effectiveness of the model in explaining the variance observed in the adolescents' life satisfaction.

In accordance with Byrne (2001), the initial test of the measurement model indicated a questionable fit to the data: $\chi^2/df = 3.36$; NFI = .98; CFI = .98; RMSEA = .11. Examination of modification indexes provided by AMOS suggested that the fit could be improved by eliminating the non-significant associations between attention and satisfaction with life. Incorporating these changes, the fit of the structural model was adequate with $\chi^2/df = 1.17$; NFI = .99; CFI = .99; RMSEA = .03. A total of 40% of the variance in life satisfaction was accounted for. The final model with standardized beta coefficients is shown in Figure 1. These results support the idea of self-esteem as a mediator of the relationship between perceived emotional intelligence and life satisfaction.

Figure 1. Final structural equation model examining the role of perceived emotional intelligence and self-esteem on life satisfaction



N = 316

** $p < .01$; * $p < .05$.

Discussion

This study replicated and extended the previous findings which indicated that perceived emotional intelligence was associated with higher life satisfaction in adolescents. In addition, the increased feelings of self-esteem presumed to be associated with higher perceived emotional intelligence were, in turn, hypothesized to explain the relationship between perceived emotional abilities and life satisfaction.

Consistent with earlier studies in young adults and adolescents (Extremera et al., 2007; Palmer et al., 2002), the present study found that perceived emotional intelligence, particularly mood clarity and emotional repair, were related in the expected directions to higher life satisfaction. Several theorists have previously pointed out the importance of the ability to discriminate among these feelings, and to regulate one's feelings as facets of emotional processing that are important in order to adaptively use the information conveyed by one's emotions and enhance psychological well-being (Heck & Oudsten, 2008; Salovey et al., 2009). Our findings provide empirical evidence of this assumption, showing that adolescents who reported greater ability to distinguish among moods and high mood repair skills indicated greater global self-esteem. As the evidence provided by Schutte et al. (2002) suggests, it may be reasonable to assume that the understanding and regulation of components of EI with regard to moods may facilitate positive affect in the self-evaluative process. Individuals high in EI may be able to maintain higher positive mood states and higher self-esteem states because their understanding and

regulation abilities enable them to counter some of the influence of negative situations and maximize the influence of positive situations (Salovey et al., 1999; Schutte et al., 2002). Our results provide some empirical support for this idea.

Moreover, results of structural equation modeling indicated that mood clarity and emotional repair had a significant direct and indirect link (via self-esteem) with life satisfaction. Consistent with much past research linking self-esteem to a variety of positive mental health indices (e.g., Diener & Diener, 1995; Leary, 1999), self-esteem was in our research also significantly associated with life satisfaction in adolescents. Thus, self-esteem was shown to be a partial mediator of the relationship between perceived emotional intelligence and life satisfaction. This result is consistent with previous studies which show that self-esteem has a positive effect as an intervening variable on the relationships of life satisfaction and well-being indicators with some other personality and social dimensions, such as neuroticism, social support, loneliness (Chang, 2001; Çivitci & Çivitci, 2009; Estévez, et al., 2008). However, although the inclusion of self-esteem in testing a mediation model resulted in decreases in mood clarity as well as in emotional repair's influence on life satisfaction, these dimensions were still found to maintain a direct influence on life satisfaction in adolescents. Hence, these findings suggest that, beyond the indirect influence of perceived emotional intelligence through self-esteem, perceived emotional intelligence has a direct impact on life satisfaction.

Considered together, these results suggest that self-esteem mediates the effects of perceived emotional

intelligence on life satisfaction via a complex process. Adolescents with high expectations regarding their ability to understand and manage their moods experience and savour more positive emotions and tend to be more satisfied with their life (Salovey et al., 2009). Similarly, feelings of self-worth and self-acceptance play an important role in the process of psychological adaptation and emotional well-being in adolescents (Leary, 1999). Accordingly, adolescents with high self-esteem might be especially more likely to experience positive moods and feel more satisfaction with different areas of their lives compared to low self-esteem adolescents. In this line, adolescents skilled at understanding and managing moods should also be likely to experience a more positive overall evaluation of themselves (Schutte et al., 2002). Finally, adolescents with high mood clarity and emotional repair would be more likely feel positive affect in the self-evaluative process and would experience more self-worth which, in turn, would promote higher satisfaction with life in the global sense. In same way, these findings provide further evidence that perceived emotional intelligence influence, with the help of self-esteem, has a positive impact on one's sense of life satisfaction.

These findings may be valuable, not only for developing theoretical models and for better understanding the link between emotional abilities and life satisfaction, but also for developing more empirically-validated positive psychology-intervention programmes to facilitate well-being in children and young adolescents (Sin & Lyubomirsky, 2009; Gilman, Huebner, & Furlong, 2009). Emotionally intelligent adolescents might be taught how to employ specific strategies for repairing negative moods and increasing positive ones to experience higher feelings of self-worth; this in turn might help them to increase their feelings of satisfaction with their life during adolescence. Our findings provide empirical insight for a possible model for future scientifically-based positive psychology programmes, as it integrates two key aspects for positive young development: the wherewithal to maintain more effectively positive moods, as well as to predict subsequent levels of life satisfaction during young development.

Finally, several limitations of the current study should be mentioned. Like other empirical research using the TMMS (Fernández-Berrocal & Extremera, 2008), the scale appears to be a useful tool in the analysis of individuals' ability to monitor and regulate their individual emotions and mood, but it does not provide measurement of individuals' ability to monitor and regulate the emotions of others. Future studies might use measures that include intrapersonal as well as interpersonal dimensions, or use EI ability tests such as MSCEIT (Mayer-Salovey-Caruso Emotional Intelligence Test; Mayer, Salovey, & Caruso, 2002). Moreover, although our data provide evidences for the meditation model proposed, due to the cross-sectional nature of the data it is impossible to determine the

directionality of any causal relationships between variables. Although, there is some experimental evidence that emotional abilities lead to increased self-esteem (Schutte et al., 2002), and longitudinal and experimental perspectives would help to clarify the proposed causal pathways. In addition, it is important to underline that our participants were based on a normal sample of adolescent high-school students. This raises the possibility that our present findings might not be generalizable to adolescents with clinical problems. Further work with clinically depressed adolescents and community samples would be useful.

Despite these limitations, our research provides further empirical evidences that one's clarity in perceiving moods and confidence in one's own ability to repair moods has a direct effect on his or her satisfaction with life. However, these characteristics are also critical for the maintenance and development of satisfactory levels of self-esteem which, in turn, indirectly enhance subsequent well-being in adolescents. These findings support inclusion of emotional abilities and self-esteem in future positive psychology intervention in adolescence aimed at preventing and promoting the well-being of adolescents.

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