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# Positive emotions, self-esteem, interpersonal relationships and social support as mediators between emotional intelligence and life satisfaction[☆]

*Emociones positivas, autoestima, relaciones interpersonales y apoyo social como mediadores entre la inteligencia emocional y la satisfacción con la vida*

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**Abstract**

This study aims to identify the mediation function of the variables of positive emotions, self-esteem, interpersonal relationships, and social support between emotional intelligence and life satisfaction. This is the first study that analyzed, with Latin-American population, the mediating effect of these variables in a simultaneous manner. The sample was comprised by 417 Mexican youth, ages between 18 and 21 years old, that completed the TMMS-24 scale and some subtests of the WHOQOL100. The results of the structural equation modeling showed that emotional clarity plays a predictive role over positive emotions and self-esteem, while emotional repair influences positive emotions and a greater satisfaction with interpersonal relationships. In the same manner, positive emotions, self-esteem, and interpersonal relationships together are those that contribute with 50% of the variance for life satisfaction.

**Resumen**

El presente estudio tuvo como objetivo el identificar la función mediadora de las variables de emociones positivas, autoestima, relaciones interpersonales, y apoyo social entre la inteligencia emocional y la satisfacción con la vida. Este es el primer estudio que analiza, en población latinoamericana, los efectos mediadores de estas variables de manera simultánea. La muestra fue constituida por 417 adolescentes mexicanos, de entre 18 y 21 años de edad, los cuales contestaron la escala del TMMS-24m y algunas subescalas del WHOQOL100. Los resultados del análisis de modelos de ecuaciones estructurales mostraron que la claridad emocional juega un rol predictivo sobre las emociones positivas y la autoestima, mientras que la reparación emocional tiene influencia sobre las emociones positivas y una mayor satisfacción en las relaciones interpersonales. De la misma manera, las emociones positivas, la autoestima, y las relaciones interpersonales contribuyen juntas a un 50% de la varianza sobre la satisfacción con la vida.

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## Introduction

New paradigms and models of psychology consider that is necessary to address not only those factors associated to deficits or disorders in individuals, but to emphasize as well those elements that provide people with well-being.

It is precisely in this frame of Positive Psychology, that emotional intelligence (EI) explains that proper management of emotions is related to a better perception of life. The study of EI has reframed and its consolidation is based on numerous empiric studies that support models whose purpose is to explain it (Mayers, Roberts, & Barsade, 2008). There are three major models of EI: the Mayer–Salovey (1997) which defines this construct as the ability to perceive, understand, manage and use emotions to facilitate thinking; the Goleman (2006) model which views EI as an assortment of emotional and social competencies that contribute to managerial performance and leadership, and the Bar-On model which describes it as an array of interrelated emotional and social competencies, skills and behaviors that impact intelligent behavior (Bar-On, 2004).

In this study we address the construct of EI as an ability, therefore using the model of Mayer and Salovey (1997), who define it as the ability to perceive and value emotions with precision; the ability to access and/or generate feelings when these facilitate thinking; the ability to understand emotions and emotional knowledge, as well as emotional regulation, which is the ability to regulate emotions that promote emotional and intellectual growth. Emotional regulation is one of the four components of emotional intelligence (Bisquerra, 2007; Mayer & Salovey, 1997).

Life satisfaction (LS) is defined as one's evaluation of life as a whole, rather than the feelings and emotions that are experienced in the moment (Diener, Emmons, Larsen, & Griffin, 1985). There are multiple studies that have addressed, and classified as positive, the direct relationship between emotional abilities and LS; this being evaluated with different instruments and among distinct populations (Ferragut & Fierro, 2012; Ignat, 2010; Schutte, Manes, & Malouff, 2009; Singh & Woods, 2008). However, evidence with respect to the predictive validity of LS has been inconsistent depending on the type of EI models that have been considered and the variables that are controlled by regression analyses.

Research like the one conducted by Salami (2011) or Koydemir and Schutz (2012) showed that EI has a predictive validity over LS, even when different variables such as personality are considered. Yet, there are studies that have shown that only the comprehension of emotions (emotional clarity) or the regulation of them (emotional repair) keep their significance and low predictive value, once other type of variables are controlled such as positive and negative affects (Augusto, López-Zafra, Martínez, & Pulido, 2006) or optimism–pessimism (Extremera, Durán, & Rey, 2007). Whereas studies as the one conducted by Extremera and Fernández-Berrocal (2005) concluded that, once the variables of personality and negative emotions were included, only the emotional clarity variable explained a small significant variance over LS on a sample of college students. The study of Augusto, Pulido, and López-Zafra (2011) found similar results but including the variable of willingness to optimism, as well as the study of Palmer, Donaldson, and Stough (2002) who also considered positive emotions.

Management of emotions, the ability to successfully regulate one's emotions such as stress, impulses and motivation, thoughts, and behaviors in different situations (Mayer, Salovey, & Caruso, 2002). In the same way that with LS, there are studies that have found that the management of emotions, maintains its significance, but at a low predictive level, when variables like personality and some socio demographic aspects such as income and marital status are included (Gannon & Ranzjin, 2005). The study of Kong and Zhao (2013) evaluated the mediating effect of positive and negative emotions over EI. The instrument used to evaluate EI included factors related to emotional self-conscious, the use of emotions for self-motivation, the evaluation of their emotions and the emotions of others, and the emotional regulation. They found that positive emotions had a stronger effect than the one reported by negative emotions.

It should be noted that in multicultural studies, like the one by Koydemir, Sismsek, Schutz, and Tipandjan (2013), differences were found regarding the predictive value of mediating aspects between EI and LS. For example, it was reported that Germans dwelled more on the balance in affects, while Hindus stated that social support was stronger in predicting LS. The influence between these cultural factors has also been discussed, because there are differences between individualistic and collective cultures. In collective cultures for example, the predictive value of EI over LS is lost, once the personality and affective variables are controlled (Thingujam, 2011).

### The present study

In general, the evidence of international studies suggests that EI can benefit dispositional influences on psychological well-being (Singh & Woods, 2008), instead of predicting directly LS. A previous analysis (Ruvalcaba, Fernández-Berrocal, & Salazar, 2014) stated that the effect of EI over LS is not direct. Given that EI loses its significance when controlling the individuals' psychological aspects such as self-esteem and positive emotions, as well as factors associated to social environment such as the satisfaction with the quality of interpersonal relationships and the perceived social support. For this reason, the present study stems from the hypothesis that an improvement of emotional abilities would have an indirect effect upon LS by favoring self-esteem, positive emotions, interpersonal relationships and social support. The current study is the first-ever to analyze the mediating effect of these variables in Latin-American population (Fig. 1).

Also, while previous studies had only considered one of these variables and not the effect of all of them, to date there are no studies published in peer-reviewed journals that explored this relationship in a simultaneous manner. It is also important to emphasize that the present study does not consider a global punctuation of EI but an instrument that evaluates three factors; emphasizing on those factors of major influence that have been identified by previous literature.

The analyses were performed under the assumption that better emotional abilities promote the experience of positive
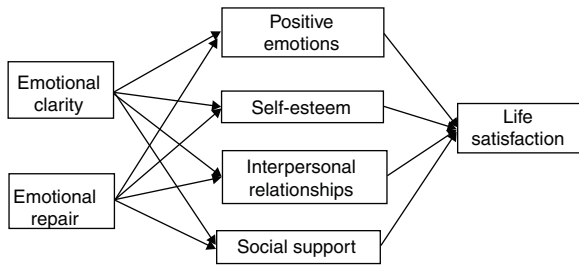
Fig. 1. A hypothetical model to explain the relationship between emotional intelligence and life satisfaction.

Table 1
Descriptive statistics of variables used.

| | Mean | S.D. | Minimum | Maximum |
|---|---|---|---|---|
| Life satisfaction | 15.00 | 3.047 | 5 | 20 |
| Positive emotions | 15.49 | 2.958 | 4 | 20 |
| Self-esteem | 15.71 | 3.310 | 4 | 20 |
| Interpersonal relationships | 15.44 | 2.988 | 6 | 20 |
| Social support | 14.62 | 3.262 | 5 | 22 |
| Emotional attention | 25.47 | 6.90 | 8 | 40 |
| Emotional clarity | 26.62 | 6.86 | 9 | 40 |
| Emotional repair | 28.91 | 6.89 | 8 | 40 |

emotions, an increase in self-esteem, as well a higher level of satisfaction with the quality of interpersonal relationships and perceived social support. Being these variables, those predict the most LS.

## Method

### Participants

The sample was constituted by 417 young adults (171 men and 246 women), between 18 and 21 years old, studying high school in five school facilities of the High School Education System (the SEMS from Universidad de Guadalajara) located in the Metropolitan Area as well as in the North and South regions of the Jalisco State in Mexico.

### Instruments

(a) A survey was used to identify socio demographic characteristics.
(b) World Health Organization Quality of Life (World Health Organization [WHOQOL Group], 1995, Spanish version, Lucas, 1998, 2012) it is an instrument that was elaborated by this organization departing from the institutional definition of Quality of Life.
- It is worth to mention that for this study only the four items corresponding to Life Satisfaction were considered ($\alpha = 786$) as well as the following facets (WHO, 1998): Positive Feelings examines to what extent a person experiences positive feelings of satisfaction, balance, peace, happiness, hope, and joy as well as the enjoyment of the good things in life ($\alpha = .714$). Self-esteem refers to feelings that people have towards themselves ($\alpha = .787$). Interpersonal Relationships evaluates to what extent people feel companionship, love, and the support they want from their significant others ($\alpha = .603$). Lastly, Social Support refers to what extent a person perceives commitment, approval, and availability for receiving help from family and friends ($\alpha = .623$).
(c) Trait Meta Mood Scale (TMMS-24: Salovey, Mayer, Goldman, Turvey, & Palfai, 1995). Spanish version adapted by Fernández-Berrocal, Extremera, and Ramos (2004) used for evaluating Perceived Emotional Intelligence. It is a self-report measure with 24 items and a 5-point Likert-type scale integrated by three subscales. Items one to 8 correspond to

the Attention Factor ($\alpha = .878$), this ability refers to the level in which individuals can identify their own emotions as well as to perceive the emotional states in others. Items nine to 16 correspond to the Clarity Factor ($\alpha = .874$), which covers the capacity for designing different emotions and recognizing the relationship between words and the very own meaning of an emotion. It also includes the ability to understand the relationship between emotions and the different situations that trigger them. Items 17–24 relate to the Repair Factor ($\alpha = .865$), which is the capacity to be open to both positive and negative emotional states as well as the ability to reflect about emotions and determine the utility of the information. Additionally it would encompass the capacity to regulate their own and others emotions.

### Procedure

Once authorization was obtained from the directors of the educational institutions and informed consent was obtained from the participants, the administration of the measures was carried out in groups. Descriptive analysis, correlations and structural equation modeling were performed.

The information was analyzed with the statistical package SPSS v.21 and AMOS v.21.

## Results

In Table 1, basic descriptive statistics are shown for each of the variables used in this study. It can be observed that all means are above the theoretical mean.

In the same way, Table 2 shows correlations among the variables analyzed in this study. It can be observed that most of the relations are positive, indicating moderate to high correlations.

With the purpose of testing a hypothetical model about the possible mediator variables between EI and LS, the calculation of structural equations was carried out. Results showed inadequacy on fit indices, reason why a second model was used to explore a possible effect between positive emotions and self-esteem (psychological aspects) over interpersonal relationships and social support (social aspects). After doing this, fit indices improved but not as expected. Next, the relationship between positive emotions and self-esteem was explored and those elements that lost statistical meaning were eliminated, specifically the Social Support variable. After this, indicators improved considerably (Table 3).

Table 2
Analysis of the correlation among variables.

| | | LS | EA | EC | ER | PA | SE | IS | SS |
|---|---|---|---|---|---|---|---|---|---|
| Life satisfaction | LS | 1 | .064 | .410[**] | .430[**] | .562[**] | .636[**] | .628[**] | .465[**] |
| Emotional attention | EA | | 1 | .346[**] | .223[**] | .055 | .112[*] | .093 | .130[**] |
| Emotional clarity | EC | | | 1 | .572[**] | .413[**] | .416[**] | .416[**] | .242[**] |
| Emotional repair | ER | | | | 1 | .508[**] | .423[**] | .481[**] | .338[**] |
| Positive emotions | PA | | | | | 1 | .643[**] | .594[**] | .392[**] |
| Self-esteem | SE | | | | | | 1 | .614[**] | .399[**] |
| Interpersonal relations | IS | | | | | | | 1 | .545[**] |
| Social support | SS | | | | | | | | 1 |

[*] $p < .05$.
[**] $p < .01$.

Table 3
Fit indices of the structural equation model.

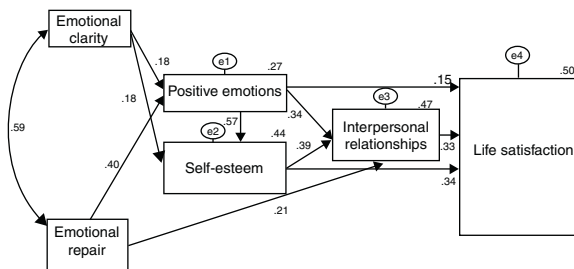| Model | $\chi^2$ | gl | $\chi^2/gl$ | Absolute fit indices | | | | Incremental fit indices | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | GFI | AGFI | RMR | RMSEA | NFI | TLI | CFI | IFI |
| 1 | 391.68 | 8 | 48.96 | .758 | .154 | 1.732 | .339 | .695 | .203 | .697 | .700 |
| 2 | 205.95 | 6 | 34.32 | .890 | .486 | 1.169 | .283 | .840 | .447 | .842 | .844 |
| 3 | 10.053 | 4 | 2.51 | .992 | .959 | .556 | .060 | .991 | .979 | .994 | .995 |



Fig. 2. Final structural model to predict life satisfaction.

In Fig. 2, the final model is presented showing the sequence through which emotional abilities exert an indirect impact over LS. This is, the capacity of understanding and regulating emotions predicts positive emotions and self-esteem and in turn, these influence the social dimensions, contributing with 47% of variance for interpersonal relationships. Finally, the elements involved in this model can explain by 50% the perception of life satisfaction.

**Discussion**

Positive and meaningful correlations were observed among most of the studied variables; this seems to indicate that all of them are elements that provide people with well-being, as it was pointed out in the introduction of the study.

The correlation between emotional repair and LS supports the results obtained by Mayers et al. (2008), who noted that proper management of emotions is related to a better perception of life. Following the same line, Ferragut and Fierro (2012), Ignat (2010), Singh and Woods (2008), and Schutte et al. (2009) found positive significant relationships between LS and the variables of emotional clarity and emotional repair of the TMMS-24.

Although this study was based on previous literature, it is innovative as it is the first to explore the simultaneous effect that some elements can exert as mediators over the relationship between emotional abilities and LS.

The model of structural equations that is presented in this study shows how emotional abilities predict, in an indirect way, LS. This supports what it was exposed by Salami (2011) and Koydemir and Schutz (2012). However, it differs from the study of Extremera and Fernández-Berrocal (2005), as the present study found that not only emotional clarity explains a light variance of LS, but also the variable of emotional repair plays a key role, promoting positive emotions and obtaining satisfaction from interpersonal relationships.

This work coincides with studies carried out by Palomera and Brackett (2006), who found that positive affect, was, with high frequency, a mediator variable between EI and well-being. In the same way, the findings in this study were similar to those by Rey, Extremera, and Pena (2011), who also pointed out that self-esteem act as mediator between emotional abilities and LS. Similar evidence like the one by Donohoe and Greene (2009) showed that the relationship between emotional regulation and meaning of life was influenced by the quality of interpersonal relationships.

Besides the similarities of this study with others, it is important to also emphasize that, as opposed to our hypothesis, the social support variable did not show to exert a decisive role in LS, and at the same time the interpersonal relationships have mediator role between individual aspects and LS, this can be due to the social support instrument that was used. With this we confirm the importance of emotional abilities that promote positive emotions in an individual, including affection experienced by one, which in turn impacts relationships with others and in conjunction they could determine life satisfaction up to 50%.

On the other hand, it is worth to mention the important role played by the emotional abilities in a social context, which at the end have a predictive value in the perception of quality of life. As Argyle (1993) mentioned, the emotions involved in social relationships are the ones more related to well-being. For this reason, it is necessary to promote the learning of the required social abilities, including expression of positive feelings to oneself and to others, in other to build stronger and healthier interpersonal relationships that perform as both a protective factor and as a promoter of well-being.

One of the limitations of this study is the sample's homogeneity related to age. For further research it is suggested to inquire on a possible relationship that includes the personality variable, as it is proposed by Salami (2011), where emotional intelligence acts as mediator between personality and psychological well-being. This would allow the evaluation of the benefits of training programs for acquiring emotional abilities.

## Conclusion

These findings from this study highlight the importance of self-esteem, positive emotions, and interpersonal relationships as mediators between emotional abilities and LS. It is important to address them in public policy that should not only focus on the improvement of life conditions, concept that sometimes has been used as synonym of life quality in Latin America, but also in adding the creation, implementation and evaluation of programs that focus on the development and improvement of emotional skills. These skills have shown to increase the experience of positive emotions, self-esteem, the quality of interpersonal skills, conflict resolution, and proactive attitudes and coping skills, and could help by diminishing problems such as violence. In this way, the conditions of communities could be improving objectively and in turn experience an increase in life satisfaction.

## Author's contribution

Author contributed in the following manner to the paper: NARR: Data collection and analysis; PFB: Advisement and draft for introduction; JGSE: Advisement and data analysis; JGG: Draft for introduction and discussion.

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