Relationship between Emotional Intelligence and mental health in School Counselors

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Abstract

Introduction: The purpose of the present research is aimed at studying the relationship between emotional intelligence as an ability and emotional intelligence as a trait and mental health of a sample of school counsellors.

Method: The sample has been made up of 203 school counsellors. The instruments used have been: Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), Trait Emotional Intelligence Questionnaire Short Form (TEIQUE-SF) and the Mental Health Scale (MH-5). In the first place, the correlations among the scoring corresponding to all of the variables were analysed. Subsequently, the differences in average (t of Student) were studied according to the educational stage in which the school counsellors are working and according to their sex. Finally, with the aim of exploring the variables that predict mental health, an analysis of multiple lineal regression was carried out, step by step.

Results: The results show that the existing relationships between EI as a trait and mental health are higher than those existing between EI as an ability and mental health. On the other hand, scorings significantly higher were registered in the school counsellors in Secondary School in the variable of emotional intelligence as an ability in emotional comprehension. Scorings significantly higher are also registered in the variable of mental health of school counsellors in Primary Education. Likewise, scorings significantly higher are also registered in women in their score of emotional intelligence as an ability in emotional regulation, and scorings significantly higher in the score of emotional intelligence as a personality trait in men. Finally, the analysis of multiple regression has allowed for identifying emotional intelligence as a trait as a predictor variable of mental health.

Discussion: The present study represents one of the first research papers carried out in a sample of school counsellors in which the influence on mental health of emotional intelligence as a trait and as an ability is analysied. Furthermore, it provides evidence about the predictive validity of EI as a trait over an indicator of mental health.

Keywords: emotional intelligence ability, emotional intelligence trait, mental health, school counselors.

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Relación entre Inteligencia Emocional y salud mental en Orientadores Educativos

Resumen

Introducción. El objetivo de la presente investigación estuvo dirigido a estudiar la relación de la inteligencia emocional, como capacidad, y la inteligencia emocional, como rasgo con salud mental, en una muestra de orientadores educativos.

Método. La muestra ha estado compuesta de 203 orientadores. Los instrumentos utilizados han sido: Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), Trait Emotional Intelligence Questionnaire Short Form (TEIQUE-SF) y la Escala de Salud Mental (MH5). En primer lugar, se analizaron las correlaciones entre las puntuaciones correspondientes a todas las variables. Posteriormente se estudiaron las diferencias de medias (t de Student) en función de la etapa educativa y en función del sexo. Finalmente, con el objetivo de explorar las variables que predicen la salud mental se realizó un análisis de regresión lineal múltiple, paso a paso.

Resultados. Los resultados evidencian que las relaciones existentes entre la IE como rasgo y la salud mental son más elevadas que las relaciones entre IE como capacidad y salud mental. Por otro lado, se constatan puntuaciones significativamente más elevadas en los orientadores de Educación Secundaria en la variable de inteligencia emocional como capacidad en comprensión emocional. También se constatan puntuaciones significativamente más elevadas en la variable salud mental en los orientadores de Educación Primaria. Igualmente, se constatan puntuaciones significativamente más elevadas en las mujeres en la puntuación de la inteligencia emocional como capacidad en regulación emocional y puntuaciones significativamente más elevadas en la puntuación de la inteligencia emocional como rasgo de personalidad en los hombres. Por último, el análisis de regresión múltiple ha permitido identificar como variable predictora de la salud mental, la inteligencia emocional como rasgo.

Discusión. El presente estudio supone uno de los primeros trabajos desarrollados en una muestra de orientadores educativos en los que se analiza la influencia de la inteligencia emocional como rasgo y la inteligencia emocional como capacidad, sobre la salud mental. Además aporta evidencias de validez predictiva de la IE como rasgo sobre un indicador de salud mental.

Palabras Clave: inteligencia emocional capacidad, inteligencia emocional rasgo, salud mental, orientadores educativos.

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Introduction

As Pérez-González (2010) explains, educational guidance is considered a factor of educational quality (Martínez, Quintanal & Téllez, 2002); it should aim to further comprehensive personality development in all students (Grañeras & Parras, 2008).

Problems of Educational Guidance

According to Bisquerra (2006), educational guidance is a process of assisting and continuously coaching all persons in every sphere, in order to foment prevention and lifelong human development. This assistance is carried out through professionalized intervention, founded on scientific principles. Similarly, according to Rodríguez-Moreno (1995), the process of educational guidance is fundamentally a process of guiding, leading, pointing the way, in order to help people get to know themselves and the world that surrounds them; it is helping the individual to clarify the essence of their life, to understand that he or she is an entity with meaning, capable of and with the right to use his/her freedom, to understand his/her own personal dignity, within a climate of equal opportunity and acting as a responsible citizen, both at work and in their free time activity.

Along these lines, accepting the assertions made by Bisquerra (2006), most definitions of educational guidance emphasize its assistance aspect as the defining characteristic. It must be emphasized that guidance is a continuous process, it should be considered an integral part of the educational process, involving all educators and reaching all persons, in all their aspects of personal development and throughout their lifetime. We conceive of guidance as an intervention that seeks to meet specific objectives focused preferably on prevention, human development and social intervention. Within this overall development we find self-development, that is, the ability to develop oneself as a consequence of self-guidance. This means that guidance works toward the development of personal autonomy as a way of educating for life.

In this context, there needs to be discussion in the educational community about the changes needed -- whether legislative, formative or identitary -- in order for the school to truly contribute to comprehensive development of students’ personality, and in the process to reflect on an explicit inclusion of social and emotional competencies in the school system. We agree with Extremera and Fernández-Berrocal (2004) in that both the school and the administration need to be involved in taking on this challenge, but it is essential that quality training
be provided for educators and especially for school counselors. Therefore, in our opinion, schools of this 21st century have the responsibility to educate our children’s emotions, as much or more than even the family (Extremera & Fernández-Berrocal, 2004).

In this line, school counselors have an important responsibility to design, develop and evaluate initiatives for improving schools, and they should take on an educational leadership role, acquiring leadership competencies and assisting the school administration in meeting what we defend as the school’s ultimate objective, the comprehensive development of the student’s personality. For these reasons, we propose that the school counselor be looked upon as an educational agent committed to improving the school, who cooperates with teachers to improve students’ comprehensive development, working closely with the school administration and promoting innovation in daily practice.

In this order of ideas, we can summarize the functions and tasks that the school counselor should carry out in his/her daily work:

1) Advise teachers for improving the teaching-learning process.
2) Involve and motivate all members of the educational community toward improving the educational institution.
3) Advise teachers and the school administration about strategies for improving interpersonal relations at school and for solving problems inside and outside the classroom.
4) Promote innovative school initiatives that lead to improvement in teaching-learning processes, involving all professionals at the school.
5) Advise members of the school administration about their role as educational leaders and promoters of all measures needed for school improvement.
6) Support the student in his/her educational, emotional and vocational development.

Therefore, school counselors require professional formation, both in pre-service training and inservice development, in the pedagogical, psychological, strategic and mediational aspects that will enable them to perform their job, with assurance of quality, in the school. We also feel that the figure of counselor is important in externalizing a school’s internal change, and leadership qualities are part of the identity of the educational counselor.
It is obvious that the functions, tasks and responsibilities described above require technical/professional competencies, but also sociopersonal competencies. According to Bisquerra and Pérez (2007), technical/professional competencies have to do with knowledge and procedures relating to a specific professional or specialization sphere. They have to do with the knowing and the know-how that are essential to expert performance of a vocational activity. By contrast, sociopersonal competencies are related to knowledge and procedures that are intrapersonal (e.g. self-motivation), and interpersonal (e.g. conflict resolution).

At this point we must clarify that the organization of educational guidance services in Spain has peculiarities in terms of different regulations followed by the different regional educational authorities. Given that the present research study is limited to the autonomous region of Castile-La Mancha (Spain), the guidance model of this region must be explained. Educational and vocational guidance is to be carried out in non-university schools supported by public funds from a mixed model of guidance, structured along three levels of intervention, the first two are internal and the third is external to the school: a. The first level, through the homeroom, is coordinated by the group’s homeroom teacher, with collaboration from all the faculty. b. The second level, involving guidance and support teams at Early Childhood and Primary schools, and by counseling departments at Secondary schools, is coordinated by the school counselors that make up these structures. c. At a third level, technical guidance teams are established to ensure a more specialized response to students who present special educational needs associated with a motor or auditory disability, developmental or behavioral disorder, or high capacities.

The debate around emotional intelligence

The most important scientific advances in the study of these sociopersonal competencies have taken place in the framework of the study of emotional intelligence. Emotional intelligence has attracted great interest in the sphere of education, as a channel for improving the socioemotional development of students, and as a fundamental characteristic of teachers.

The concept of emotional intelligence (EI) first appeared in 1990 in an article published by Peter Salovey and John Mayer. Its subsequent dissemination was largely due to the publication of the book Emotional Intelligence (1995), by Daniel Goleman, an American psychologist and journalist. Goleman’s fundamental premise was the need to generate a new framework for the study of human intelligence, going beyond cognitive and intellectual as-
pects, and that would emphasize use and management of the emotional and social world, in order to understand the course of a person’s life.

However, we share the idea that EI should not be touted as a panacea for the world’s ills, and the widespread acknowledgment that claims in Goleman’s book are highly overstated (Roberts, Zeidner & Matthews, 2007). In addition, authors like Davies, Stankov and Roberts (1998) assert that EI is a diffuse concept, and its empirical status even more questionable (given that there are still serious problems with its objective measurement and its reliability); yet its interest remains, especially to the extent that adequate measurement procedures are found and its specific identity becomes consolidated.

As presented by Bisquerra, Pérez-González and García (2015), the most-recognized conceptual categorization of EI distinguishes between mixed models and ability models, based on information processing (Mayer, Salovey & Caruso, 2000). Fernández-Berrocal and Extremera (2006, p. 67) state that the mixed model is a very broad view that conceives of EI as a set of stable personality traits, socio-emotional competencies, motivational aspects and diverse cognitive skills (Bar-On, 2000; Goleman, 1995). The ability model is a more limited view defended by such authors as Salovey and Mayer, and that conceives of EI as a genuine intelligence based on the adaptive use of emotions and their application to thought.

In this aspect, we share the thinking of Pérez, Petrides and Furham (2007, p. 83), who state that the distinction between mixed and ability models (Mayer, Caruso & Salovey; 2000), does not concur with today’s accepted psychometric theory; it overlooks the aspect of measuring method, and does not agree with all the available empirical evidence to date, which clearly shows that self-report measures of EI tend to be strongly inter-correlated to each other, regardless of whether they are based on mixed models or ability models. All the published data in this regard continues to highlight the need to distinguish between two EI constructs that should be taken into account: EI as a personality trait and EI as an ability (O’Connor & Little, 2003).

Furthermore, Pérez-González, Petrides and Furnham (2007, p. 82) add that “the distinction between mixed models and ability models does not take into account the more important aspect of operationalizing a construct (e.g., its method of measurement), and is per-
fectly compatible with the idea that cognitive capacities may be assessed through self-reports (see Mayer, Caruso & Salovey, 2000).”

Ability EI can be conceived as an “ability to perceive, assimilate, understand and regulate our own emotions and those of others to promote emotional and intellectual growth” (Mayer & Salovey, 1997, p.10). Ability EI ought to be measured using maximum performance or maximum execution tests (Cronbach, 1972). Trait EI, however, refers to “a constellation of behavioral dispositions and self-perceptions concerning one’s ability to recognize, process, and use emotion-laden information”, which are assessed using self-reports, and are located at a lower level than large, second-order personality factors, such as the big five (Petrides & Furnham, 2003; Petrides, Frederickson & Furnham, 2004). Trait EI should be measured using typical performance or typical execution tests (Cronbach, 1972). Furthermore, the relationship between ability EI and trait EI is only moderate (Joseph & Newman, 2010).

Within this theoretical framework, and after 25 years of the study of EI, we can conclude that its potential beneficial implications in diverse areas such as the sphere of healthcare and well-being, and in the spheres of education and organizations, have succeeding in attracting great interest from the scientific community.

As Schutte, Malouff and Thorsteinsson (2013) observe, many empirical studies provide information regarding variables associated with trait EI and ability EI. We can point to certain meta-analyses (Malouff, Thorsteinsson, Bhullar, & Rooke, 2007; Martins, Ramalho, & Morin, 2010) that have summarized the relationship between greater EI and better mental and physical health, through numerous studies. According to the meta-analysis from Martins et al. (2010), including 19,000 participants, emotional intelligence has significant associations with mental health, psychosomatic health and physical health. Also notable is the area of social relations, where results obtained in a meta-analysis of 1188 participants conclude that there is a significant association between greater EI and greater romantic relationship satisfaction (Malouff, Schutte & Thorsteinsson, 2012). In the organizational sphere, a meta-analysis of EI and work performance (Joseph & Newman, 2010) reported an association between high scores in ability EI and better work performance, and also between high scores in trait EI and better work performance. These results between EI and work performance are also corroborated in another meta-analysis carried out by O’Boyle, Humphrey, Polack, Hawver, and Story...
Similarly, Martínez-González, Piquerás and Ramos-Linares (2010) claim that high levels of EI are related to good mental health.

**Objective and hypotheses**

The present study examines school counselors’ ability EI and trait EI and their relationship to mental health in a sample of school counselors from the Autonomous Region of Castile-La Mancha. The study addresses the following specific objectives:

1) Analyze any existing relationship between ability EI and trait EI.
2) Analyze any existing relationship between ability EI and mental health.
3) Analyze any existing relationship between trait EI and mental health.
4) Study any possible differences in ability EI, trait EI and in mental health as a function of educational level where participating counselors are working.
5) Study any possible differences in ability EI, trait EI and in mental health as a function of the participating counselors’ gender.
6) Identify predictive variables (ability EI or trait EI) of mental health.

Consequently, the research hypotheses were as follows:

H1: There will be a moderate relationship between ability EI and trait EI.
H2: The relations between trait EI and mental health will be higher than the relations between ability EI and mental health.
H3: There will be no differences as a function of the educational level where the participating counselors are currently practicing, in any of the variables studied.
H4: Women will show higher scores than men in variables of ability EI; on the other hand, men will show higher scores than women in the variable of trait EI.
H5: Mental health will have trait EI as a predictive variable.

**Method**

*Participants*

For this study, convenience or accidental sampling was used (nonprobability sampling). The sample was composed of 203 inservice counseling professionals, all of whom belonged to Spanish public schools and who carried out their work at different non-university educational levels: Compulsory and post-compulsory secondary education (51.2%), Preschool...
and Primary Education (48.8%). As for gender, 45.3% were women and 54.7% were men. Age range was from 24 to 59 years, with a mean of 35.35 years (SD= 8.25).

**Instruments**

In order to assess Ability EI, the *Mayer-Salovey-Caruso Emotional Intelligence Test* (MSCEIT; Mayer, Salovey & Caruso, 2000) was used. The instrument measures ability EI based on the EI branches of perceiving, using, understanding and managing. The MSCEIT assesses four factors that correspond to Mayer and Salovey’s theoretical model (1997): perceiving and expressing emotions, using emotions, understanding emotions and managing one’s own emotions and the emotions of others. Additionally, it provides a total score for ability emotional intelligence, as well as scores in the two areas of experiential and strategic, and for each of the specific tasks that the test includes. The test presents adequate psychometric properties. Reliability of the Spanish adaptation, as reported by the instrument manual, is .95 for the total score. Reliability for each of the branches is as follows: (EIA-P) perceiving emotions (.93); (EIA-Using) using emotions (.76); (EIA-Undstg) understanding emotions (.83) and (EIA-M) managing emotions (.85).

In order to assess trait EI, we used the *Trait Emotional Intelligence Questionnaire Short Form* (TEIQue-SF; Petrides & Furnham 2006; adapted to Spanish in its reduced version, by Pérez-González, 2010). This instrument includes 30 items that assess the authors’ 15 subscales in their model of the trait EI construct: 1) Adaptability; 2) Assertiveness; 3) Emotion perception; 4) Emotion expression; 5) Emotion management (others); 6) Emotion regulation; 7) Reflective style (low impulsivity); 8) Relationships; 9) Self-esteem; 10) Self-motivation; 11) Social competence; 12) Stress management; 13) Empathy; 14) Happiness; and 15) Optimism. The items that make up the TEIQue-SF are scored on a 7-point Likert scale (1=totally disagree; 7=totally agree). The global score for the total scale is obtained from the sum of the 30 questionnaire items. In the present study, the instrument obtained an internal consistency index of Cronbach alpha = .84.

In order to assess mental health, we used the *MH-5 Mental Health scale* (Ware & Sherbourne, 1992; adapted to Spanish by Alonso, Prieto & Antó, 1995). The Mental Health-5 (MH-5) is one of the subscales of the SF-36 health questionnaire by Ware and Sherbourne (1992), adapted to Spanish by Alonso, Prieto and Antó (1995). The MH-5 is composed of 5 items in the area of emotional well-being, and assesses subjects’ mental health; specifically,
mental health is assessed as the degree of depressive and anxious symptomatology that the subject had presented in the past month. A high score on this scale is associated with better mental health. The scale’s small size makes it a very useful instrument for research. The questions contained in this scale are of this type: “During the past four weeks, how often were you feeling very nervous?” The answers are coded using a Likert scale ranging from 1 = Always to 6 = Never (Always, Almost always, Often, Sometimes, Rarely, Never). Participants are asked questions such as: “During the past four weeks, how often were you feeling so down that no one could cheer you up?” Its psychometric properties have shown adequate reliability and validity over more than a decade of ongoing research. Studies that have used this scale show adequate scale reliability, with Cronbach alpha ranging between .77 and .85 (Vilagut, Ferrer, Rajmil, & Rebollo, 2005). In the present study, the instrument obtained an internal consistency index of Cronbach alpha = .81.

Procedure

The instruments were administered during academic year 2013-14, in one session. They were completed anonymously by the subjects from the sample, in the presence of this author. The study met the ethical values required for research with humans (informed consent and the right to information, protection of personal information and guarantees of confidentiality and non-discrimination). In addition, all instruments were applied following the authors’ instructions and recommendations.

Statistical Analysis

First, we performed a descriptive study of the answers given by the participating counselors on the instruments. Next, we analyzed correlations between the scores corresponding to each variable. Afterward, we studied differences of means (Student’s t) as a function of the educational level in which the counselors were currently practicing, and as a function of the participant’s gender. Finally, in order to explore variables that predict mental health (that is, a high score on this criterion variable), a stepwise, multiple linear regression analysis was carried out.
Results

Relationship between ability EI, trait EI and mental health.

Table 1 shows the descriptive statistics and results from Pearson correlation analyses of measures used in this study. Regarding the association of mental health with trait EI, there was a statistically significant, positive relationship \((r = .53, \ p < .01)\). Regarding the association of mental health with ability EI, there was a statistically significant, positive relationship: with the global ability EI score \((r = .29, \ p < .01)\); with ability EI, using emotions branch \((r = .20, \ p < .05)\); and with ability EI, understanding emotions branch \((r = .26, \ p < .01)\). However, no significant associations were found with scores for ability EI, perceiving emotions branch, or ability EI, managing emotions branch.

Regarding the association of the global trait EI score and scores for ability EI, there was a statistically significant, positive relationship between all of them: most notably with the global ability EI score \((r = .38, \ p < .01)\).

Table 1. Correlations matrix and descriptive statistics of the variables; ability emotional intelligence, trait emotional intelligence and mental health.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEI-Global</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>99.17</td>
<td>10.98</td>
</tr>
<tr>
<td>AEI-P</td>
<td>.76**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100.48</td>
<td>12.89</td>
</tr>
<tr>
<td>AEI-Using</td>
<td>.72**</td>
<td>.49**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>95.94</td>
<td>9.90</td>
</tr>
<tr>
<td>AEI-Undstg</td>
<td>.64**</td>
<td>.23**</td>
<td>.31**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td>102.72</td>
<td>12.05</td>
</tr>
<tr>
<td>AEI-M</td>
<td>.67**</td>
<td>.28**</td>
<td>.36**</td>
<td>.37**</td>
<td>-</td>
<td></td>
<td></td>
<td>98.51</td>
<td>11.51</td>
</tr>
<tr>
<td>TEI-Global</td>
<td>.38**</td>
<td>.35**</td>
<td>.29**</td>
<td>.25**</td>
<td>.17*</td>
<td>-</td>
<td></td>
<td>4.69</td>
<td>.61</td>
</tr>
<tr>
<td>MH-Global</td>
<td>.29**</td>
<td>.19</td>
<td>.20*</td>
<td>.26**</td>
<td>.15</td>
<td>.53**</td>
<td>-</td>
<td>14.95</td>
<td>4.25</td>
</tr>
</tbody>
</table>

Note: (1) AEI-G: Global score on ability emotional intelligence; AEI-P: Ability emotional intelligence - perceiving emotions branch; AEI-Using: Ability emotional intelligence - using emotions branch; AEI-Undstg: Ability emotional intelligence - understanding emotions branch; AEI-M: Ability emotional intelligence - managing emotions branch; TEI-Global: Global score on trait emotional intelligence; MH-Global: Global score on mental health; (2) *=p<.05; **=p<.01.
Differences of means as a function of the educational level in which the counselors were currently practicing

In order to explore possible differences of means as a function of the educational level where the participating counselors were currently practicing, two subgroups were created for comparison using Student's t test for independent samples (See Table 2): a subsample of counselors that are practicing in Preschool and Primary Education (N = 99) and a subsample of counselors that are practicing in compulsory and post-compulsory secondary education (N = 594).

As for the ability EI variables, significant differences were found as a function of the level where participating counselors were currently practicing only for the score of ability EI, understanding emotions branch. In particular, significantly higher scores were registered for ability EI, understanding emotions branch, in counselors from compulsory and post-compulsory secondary education. In order to assess the magnitude of these differences, effect size was calculated (Cohen, 1992), with a moderate effect size observed (d=.37).

As for the trait EI variable, no significant differences were found as a function of level where the participating counselors were currently practicing. As for the mental health variable, significant differences were also found as a function of level where the participating counselors were currently practicing. In particular, significantly higher scores were verified for mental health in counselors from preschool and primary education. In order to assess the magnitude of these differences, effect size was calculated (Cohen, 1992), with a moderate effect size observed (d=.47).
Table 2. Mean, standard deviation (SD), Student’s t, and effect size of the differences of means (d) as a function of the educational level in which the counselors were currently practicing

<table>
<thead>
<tr>
<th>Variables</th>
<th>Primary</th>
<th>Secondary</th>
<th>t</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEI-Global</td>
<td>97.78</td>
<td>100.56</td>
<td>-1.68</td>
<td></td>
</tr>
<tr>
<td>AEI-P</td>
<td>100.08</td>
<td>100.88</td>
<td>-.41</td>
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<tr>
<td>AEI-Using</td>
<td>95.00</td>
<td>96.88</td>
<td>-1.26</td>
<td></td>
</tr>
<tr>
<td>AEI-Undstg</td>
<td>100.52</td>
<td>104.91</td>
<td>-2.45*</td>
<td>.37</td>
</tr>
<tr>
<td>AEI-M</td>
<td>97.89</td>
<td>99.13</td>
<td>-.71</td>
<td></td>
</tr>
<tr>
<td>TEI-Global</td>
<td>4.63</td>
<td>4.75</td>
<td>-.60</td>
<td>-1.32</td>
</tr>
<tr>
<td>MH-Global</td>
<td>15.74</td>
<td>13.80</td>
<td>2.44*</td>
<td>.47</td>
</tr>
</tbody>
</table>

Note: (1) AEI-G: Global score on ability emotional intelligence; AEI-P: Ability emotional intelligence - perceiving emotions branch; AEI-Using: Ability emotional intelligence - using emotions branch; AEI-Undstg: Ability emotional intelligence - understanding emotions branch; AEI-M: Ability emotional intelligence - managing emotions branch; TEI-Global: Global score on trait emotional intelligence; MH-Global: Global score for mental health; (2) The t value corresponds to the result of the Student’s t test in which equal variances are not assumed; *=p<.05; **=p<.01; ***=p<.001; (3) Calculation of Cohen’s index (1992) or “standardized mean difference” for the effect size of the differences on each variable.

Differences of means as a function of the participating school counselors’ gender

In order to explore possible differences of means as a function of the participating school counselors’ gender, Student's t test for independent samples was used for the comparison (See Table 3): male subsample (N = 111) and female subsample (N = 92).

As for the ability EI variables, significant differences were found as a function of gender only in the score for ability EI, managing emotions branch. In particular, significantly higher scores were verified for ability EI, managing emotions branch, in the women. In order to assess the magnitude of these differences, effect size was calculated (Cohen, 1992), with a moderate effect size observed (d=.43).

As for the trait EI variable, significant differences were found as a function of gender. In particular, significantly higher scores were registered for trait EI in the men. In order to assess the magnitude of these differences, effect size was calculated (Cohen, 1992), with a small effect size observed (d=.35).

Regarding the mental health variable, significant differences were also found as a function of gender. In particular, significantly higher scores in mental health were verified in the men. In order to assess the magnitude of these differences, effect size was calculated (Cohen, 1992), with a large effect size observed (d=.71).
Table 3. Mean, standard deviation (SD), Student’s t, and effect size of the differences of means (d) as a function of the participating school counselors’ gender

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male</th>
<th>Female</th>
<th>t</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEI-Global</td>
<td>97.75</td>
<td>100.00</td>
<td>-1.31</td>
<td></td>
</tr>
<tr>
<td>AEI-P</td>
<td>100.28</td>
<td>100.59</td>
<td>-.15</td>
<td></td>
</tr>
<tr>
<td>AEI-Using</td>
<td>94.63</td>
<td>96.70</td>
<td>-1.38</td>
<td></td>
</tr>
<tr>
<td>AEI-Undstg</td>
<td>102.68</td>
<td>102.74</td>
<td>-.03</td>
<td></td>
</tr>
<tr>
<td>AEI-M</td>
<td>95.45</td>
<td>100.30</td>
<td>-2.74**</td>
<td>.43</td>
</tr>
<tr>
<td>TEI-Global</td>
<td>4.82</td>
<td>4.61</td>
<td>2.24*</td>
<td>.35</td>
</tr>
<tr>
<td>MH-Global</td>
<td>16.42</td>
<td>13.57</td>
<td>3.68***</td>
<td>.71</td>
</tr>
</tbody>
</table>

Note: (1) AEI-G: Global score on ability emotional intelligence; AEI-P: Ability emotional intelligence - perceiving emotions branch; AEI-Using: Ability emotional intelligence - using emotions branch; AEI-Undstg: Ability emotional intelligence - understanding emotions branch; AEI-M: Ability emotional intelligence - managing emotions branch; TEI-Global: Global score on trait emotional intelligence; MH-Global: Global score for mental health; (2) The t value corresponds to the result of the Student’s t test in which equal variances are not assumed; *p<.05; **p<.01; ***p<.001; (3) Calculation of Cohen’s index (1992) or “standardized mean difference” for the effect size of the differences for each variable.

Variables predictive of mental health

In order to explore variables that predict mental health --that is, a high score on this criterion variable-- a stepwise, multiple linear regression analysis was carried out. Results are presented in Table 4. As can be observed in Table 4, of the set of variables that predict mental health, only one was statistically significant: the global trait EI score (Beta = .582). This predictive variable has medium explanatory power, predicting 33.4% of the variance.

Table 4. Linear multiple regression analysis for variables predictive of mental health

<table>
<thead>
<tr>
<th>Variable</th>
<th>MH-Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beta</td>
<td>7.916</td>
</tr>
<tr>
<td>TEI-Global</td>
<td>51.780***</td>
</tr>
</tbody>
</table>

F_{(1,202)}=51.780***, R^2_{adj}=.332

Note (1) *p<.05; **p<.01; ***p<.001; (2) TEI-Global: Global score on trait emotional intelligence.
Discussion

The results from our study provide evidence of the importance of EI in predicting mental health for school counselors. First, evidence is offered for a statistically significant, positive and moderate relationship between trait EI and ability EI, most notably with the global ability EI score. Our results agree with those found in other studies carried out in adult population and that assess EI through typical performance and maximum performance tests, where correlations between the two scores tend to fall around $r = .30$ (Furnham, 2001). These results confirm hypothesis 1 that proposed moderate relationships between ability EI and EI as a personality trait.

They likewise ratify hypothesis 2 that postulated that relations between trait EI and mental health ($r = .53$, $p < .01$) would be higher than the relations between ability EI and mental health ($r = .29$, $p < .01$). Similarly, our results point in the same direction as other studies (e.g., Bastian, Burns & Nettelbeck, 2005; Brackett, Mayer & Warner, 2004; Gardner & Qualter, 2009; Mavroveli, Petrides, Rieffé & Baker, 2007; Mikolajczak, Luminet & Menil, 2006; Mikolajczak, Luminet, Leroy & Roy, 2007; Petrides, Pérez-González & Furnham, 2007; Petrides, Pita & Kokkinaki, 2007) collected in the meta-analysis by Martins, Ramalho & Morin (2010), which concludes that ability EI and trait EI have an average association with mental health of ($\bar{r} = .36$).

On the other hand, findings partially confirm hypothesis 3, in that there are differences in ability EI as a function of the educational level where the participating counselors are currently practicing. Specifically, significant differences were found in the score for ability EI, understanding emotions branch, which produced significantly higher scores in counselors from compulsory and post-compulsory secondary education. It is likely that counselors from secondary education, due to the psychological-developmental characteristics of adolescents, have greater need to understand emotional style, the way their students act, and need to interpret the meaning of complex emotions. Adolescents are subject to a high number of interpersonal situations as well as a search for personal identity, and counselors must obviously offer greater support. Also, significantly higher scores were registered for the mental health variable in counselors from preschool and primary education. One possible explanation of these results is related to other studies where teachers from preschool and primary education obtain
lower scores in burnout as compared to teachers in compulsory and post-compulsory secondary education (e.g., Salanova, Llorens & García-Renedo, 2003).

Likewise, the results obtained are consistent with other studies on the differences in ability EI and trait EI as a function of gender (e.g., Extremera, Fernández-Berrocal, & Salovey, 2006; Sánchez-Núñez, Fernández-Berrocal, Montañés & Latorre, 2008). In this line, most research has shown that women tend to present greater levels of ability EI, with an effect size of Cohen’s $d=.47$, as presented in the meta-analysis by Joseph and Newman (2010). In our study, significantly higher scores were registered in women for ability EI exclusively in the managing emotions branch, with a similar effect size using Cohen’s $d (d=.43)$. On the other hand, studies that have focused on gender differences in trait EI present large controversies. Some of these studies reveal that men tend to present higher levels than women, as measured through typical performance tests (Brackett & Mayer, 2003; Petrides & Furnham, 2000). However, other studies conclude that no such differences exist (e.g., Joseph & Newman, 2010). In our study, significantly higher scores for trait EI were registered in the men, although admittedly the effect size was small ($d=.35$). Hypothesis 4 was thus confirmed.

Finally, the findings confirm hypothesis 5, since the multiple regression analysis identified trait EI as a predicting variable of mental health. These results concur with those presented in the meta-analysis by Martins, Ramalho and Morin (2010), who conclude that trait EI moderated the relationship with mental health in greater measure than ability EI.

In short, our study represents a first investigation using a sample of Spanish school counselors, analyzing the influence on mental health of trait EI, measured through typical performance tests, in conjunction with the influence of ability EI, measured through maximum performance tests. In addition, it offers evidence of the predictive validity of trait EI on an indicator of mental health. Future research should continue this line of investigation, corroborating results found here through prospective designs that make it possible to deduce causality relationships between the variables studied, also examining the influence of trait EI and ability EI on other important criterion variables observed in school counselors, such as burnout, degree of work satisfaction, and job performance. On the other hand, the furthering of EI research in general requires an effort on the part of investigators to design other maximum performance measures that could assess ability EI and that demonstrate its validity in different populations.
Despite these findings, our investigation presents a series of limitations that should be pointed out. The first limitation refers to the non-random nature of the sample used, thus limiting its representativeness; consequently, we must be cautious in generalizing these results. The second limitation has to do with the sample belonging exclusively to one autonomous region; we do not know whether another sociocultural framework or an increase in the sample size would modify the results. In order to address these limitations, the research team intends to carry out an extension of this study, using a sample of school counselors from several autonomous regions.

In spite of these limitations, the results of the study have practical implications for pre-service and inservice training of school counselors, since evidence is provided to defend the importance of sociopersonal competencies when carrying out the functions, responsibilities and tasks of these professionals in the school context. Similarly, these results have implications in the field of intervention and psychological prevention; they can help to identify deficits in specific aspects of ability EI and trait EI that should be addressed in order to improve the mental health of school counselors.
References


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