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Perceived emotional intelligence, general intelligence and early professional success: predictive and incremental validity

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Título: Inteligencia emocional percibida, inteligencia general y éxito profesional en el inicio de la carrera: validez predictiva e incremental.
Resumen: Aunque en el estudio de los factores que afectan al éxito profesional, se han establecido conexiones entre aspectos biográficos y otros relacionados con la capacidad, los conocimientos o la personalidad, no abundan trabajos que demuestren la relación entre la inteligencia emocional y las dimensiones de éxito profesional al inicio de la carrera profesional. Cuando estos se han realizado, los resultados han mostrado relaciones significativas entre las dimensiones de la inteligencia emocional e indicadores de éxito profesional (como el salario o el nivel del puesto). En el presente trabajo, se analizan las relaciones entre la inteligencia emocional percibida, medida mediante el cuestionario Trait Meta-Mood Scale (MMS-24), la inteligencia general, evaluada mediante prueba de factor "g" de Cattell, escala 3, e indicadores extrínsecos de éxito profesional, en una muestra de 130 egresados universitarios que se encuentran en el inicio de su carrera profesional. Los resultados obtenidos en el análisis de regresión jerárquica, indican que la inteligencia emocional realiza una contribución específica y significativa a la predicción del salario, una vez controlado el efecto de la inteligencia general. Las dimensiones de la inteligencia emocional percibida TMMS control y TMMS atención, junto con el sexo, muestran una relación mayor con el éxito profesional y realizan una mayor contribución a la predicción del mismo que la inteligencia general. Se discuten las implicaciones de estos resultados para la formación futura en competencias socioemocionales a los titulados universitarios.
Palabras clave: Inteligencia emocional percibida; inteligencia general; éxito profesional; salario.

Abstract: Although the study of factors affecting career success has shown connections between biographical and other aspects related to ability, knowledge and personality, few studies have examined the relationship between emotional intelligence and professional success at the initial career stage. When these studies were carried out, the results showed significant relationships between the dimensions of emotional intelligence (emotional self-awareness, self-regulation, social awareness or social skills) and the level of professional competence. In this paper, we analyze the relationship between perceived emotional intelligence, measured by the Trait Meta-Mood Scale (TMMS-24) questionnaire, general intelligence assessed by the Cattell factor "g" test, scale 3, and extrinsic indicators of career success, in a sample of 130 graduates at the beginning of their careers. Results from hierarchical regression analysis indicate that emotional intelligence makes a specific contribution to the prediction of salary, after controlling the general intelligence effect. The perceived emotional intelligence dimensions of TMMS repair, TMMS attention and sex show a higher correlation and make a greater contribution to professional success than general intelligence. The implications of these results for the development of socio-emotional skills among University graduates are discussed.
Key words: Perceived emotional intelligence; general intelligence; career success; salary.

Introduction

The literature shows that intelligence tests are valid predictors for success at work, meaning that mental ability is not only the best predictor of high performance in most work situations (Schmidt & Hunter, 2004), but also a stable predictor over time with indicators of success and occupational prestige (Judge, Klinger & Simon, 2010), especially in work of a more complex nature (Gottfredson, 2003).

However, few studies have analyzed the link between mental ability and career success (Judge et al., 2010). When these studies have been performed, positive relations have been found between general intelligence and extrinsic career success (Judge, Higgins, Thoreson & Barrick, 1999), while in others the relations found have only been moderate (Ng, Eby, Sorensen & Feldman, 2005).

Meanwhile, the importance of another type of variable has been proven in studies that have attempted to identify the personal factors or socioemotional skills critical for career success (Ariza, 2001; Boudreau, Boswell & Judge, 2001; Cherniss, 2001). The relationships between factors such as locus of control, self-control, self-esteem, optimism, Machiavellianism and career success (Lau & Schaffer, 1999), occupational prestige and income, (Kammeyer-Mueller, Judge & Piccolo, 2008) have thereby been highlighted.

Of the variables that have shown positive relations with criteria for career success, the personality variables based on the Five Factor Model have accounted for much of the research in both traditional studies and in meta-analytical studies in the United States (Ng et al., 2005) and in the European community (Salgado, 1998). The predominant conclusions in this group of studies suggest that responsibility, extraversion and emotional stability are positively related with performance at work, remuneration and higher professional status, while neuroticism is negatively related with these criteria (Barrick & Mount, 1991; Gelissen & De Graaf, 2006).

Besides personality factors, there is now a considerable body of research suggesting that emotional intelligence (EI) provides the basis for social and emotional skills that are important for success in almost any job (Boyatzis, Goleman & Rhee, 2000; Derksen, Kramer & Katzko, 2002; Dulewicz & Higgs, 1998; Guillén, Saris & Boyaztis, 2009; Goleman, 1998; Law, Wong, & Song, 2004; Sala & Dwight, 2002; Spencer & Spencer, 1993).

The ways of conceptualizing this construct have been grouped into two main models: ability-related models (Mayer, Salovey & Caruso, 2000) and mixed models (Bar-On,

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1997; Goleman, 1998). The former define EI as a type of intelligence, and as a set of skills for processing emotional information and managing the emotions (Mayer & Salovey, 1997). The latter combine cognitive skills with interpersonal skills, social skills and other dispositional factors (Boyatzis et al., 2000). Another distinction based more on the type of measure than on the theoretical model has also been established between EI models of information processing and trait EI models (Petrides & Furnham, 2000).

These alternative ways of understanding EI play different roles in its relationship with performance at work, and in turn determine the type of assessment instrument used, which are basically related to skills or self-reporting. As a result, the measures of maximum performance with correct and incorrect answers (e.g. the Mayor Salovey Caruso Emotional Intelligence Test (MSCEIT); Mayer et al., 2000) are based on models of ability and on information processing models. The self-report models are also divided into two categories. The first includes those based on the skills model of Salovey and Mayer (1990), which assess individuals' perceptions of their emotional skills (e.g. the Trait Meta-Mood Scale (TMMS); Salovey, Mayer, Goldman, Turvey and Palfai, 1995); The second includes those focusing on non-cognitive factors such as social skills, self-esteem and personality dimensions (e.g. the Emotional Quotient Inventory (EQ-i); Bar-On, 1997; the Trait Emotional Intelligence Questionnaire – TEIQUE; Petrides, Pita & Kokkinaki, 2007).

The importance of this construct has been analyzed in numerous studies that have shown its predictive ability as regards various criteria for both academic and career success (Brackett & Mayer, 2003; Côté & Miners, 2006; Brackett, Rivers & Salovey, 2011; Dulewicz, Higgs & Slaski, 2003; Fox & Spector, 2000; Gardner & Qualter, 2010; Goleman, 1998; Lam & Kirby, 2002; Lopes, Grewal, Kadis, Gall & Salovey, 2006; Lyons & Schneider, 2005; Mayer et al., 2000; Sevinc, 2001; Van der Zee, Thijs & Schakel, 2002; Van Rooy & Viswesvaran, 2004).

These positive results have been obtained in both studies based on skills models (Daus & Ashkanasy, 2005; Lopes et al., 2004; Lopes et al., 2006; Rossen & Kranzler, 2009), and in studies based on mixed emotional intelligence models (Bar-On, Handley & Fund, 2005; Boyatzis et al., 2000; Epstein, 2003; Goleman, 1998; Sevinc, 2001). Their predictive nature can also be applied to other criteria such as managerial effectiveness (Boyatzis, Good & Massa, 2012; Harms & Credé, 2010; Rosete & Ciarrochi, 2005; Semadar, Robins & Ferris, 2006; Wong & Law, 2002) and job satisfaction (Carmeli, 2003).

In addition to these results, some findings have shown the incremental validity of emotional intelligence on general intelligence and personality factors when predicting outcomes at work, and both extrinsic and intrinsic indicators of career success (Bastian, Burns & Nettelbeck, 2005; Burns, Bastian & Nettelbeck, 2007; Iliescu, Ilie, Ispas & Ion, 2012; Lam & Kirby, 2002; Law, Wong, Huang & Li, 2008; Lyons & Schneider, 2005; O'Boyle, Humphrey, Pollack, Hawver & Story, 2011; Rode et al., 2007; Van der Zee & Wabeke, 2004).

However, the effects of emotional intelligence on success do not seem to have a clear, simple and direct influence. Furthermore, some findings have led some writers to conclude that EI does not provide incremental validity for the prediction of professional performance or success to any greater extent than general intelligence and personality (Amelang & Steinmayer, 2006; Antonakis, 2004; Barchard, 2003; Byrne, Dominick, Smither & Reilly, 2007; Coté & Miners, 2006; García-Izquierdo, García-Izquierdo & Ramos-Villagrasa, 2007; Joseph & Newman, 2010; Landy, 2005; Newsome, Day & Catano, 2000; Rode, Arthaud-Day, Mooney, Near, & Baldwin, 2008; Schulte, Ree & Carretta, 2004).

We conducted this study in order to compare the ability of emotional intelligence to that of general intelligence for predicting career success. To that end, we used one of the most extensively used reporting methods, based on the model of Salovey and Mayer (1990), the TMMS, which evaluates what is known to researchers as Perceived Emotional Intelligence (PEI), i.e. the knowledge that individuals have about their emotions rather than their emotional capacity. Sex and age were included as control variables, as data that link the former with salary were found (Ng, Eby, Sorensen & Feldman, 2005; Rode et al., 2008).

As regards the criteria, we focused on career success, defined as the set of psychological and work-related results derived from experience at work (Seibert, Crant & Kraimer, 1999). Two measures of success are usually considered: extrinsic, based on objective indicators such as salary, and intrinsic, based on subjective indicators such as career satisfaction (Judge, Cable, Boudreau & Bretz, 1995). Even when both types of criteria are important and reflect measures that are related but independent, for the purposes of this study we have only included extrinsic indicators of success: salary and job level. There are several reasons for this decision. First, salary has been the most extensively used measure of career success in the research (Judge et al., 2010) and is the most easily accessible (Hall, 2002). Second, the fact that it is observable, highly visible and objective (Jaskolka, Beyer & Trice, 1985) makes it less susceptible to the errors derived from the greater susceptibility to subjective parameters (Ng et al. 2005) to which to self-reported measures are subject (Heslin, 2005). Finally, we considered that in order to evaluate intrinsic success indicators such as career satisfaction, a longer period of professional experience than that presented by the individuals in this study is required. The fact that this study focuses more on incremental validity at a specific point in time at the beginning of the career, rather than on its evolution, as well as the greater wealth of the results derived from the increased differentiation between extrinsic success criteria, compared to the self-reporting measures used as independent variables, was also significant in our decision not to include intrinsic criteria.

Based on the above, the hypothesis we consider in this study is: the dimensions of perceived emotional intelligence (perception, understanding and emotional self-regulation) make a significant contribution to the prediction/explanation of extrinsic career success (salary and job level) beyond the contribution made by general intelligence (IQ).

Method

Participants

The study was conducted on a sample of 130 university graduates (32% male and 68% female), with a mean age of 23.4 years old and a standard deviation of 4.38. This sample in turn originated from an original sample of 906 final year students (2007/2008) taking various courses in the areas of science and technology (25.7%), socio-economics (18.9%), education (24.5%), bio-health (15.9%) and humanities (6.5%), registered at the University of Alicante, Spain. Three years earlier, they had participated in a more extensive study for which they had been selected by means of a stratified random sampling system proportional to the number of students registered in each of the scientific-professional areas mentioned above. The gender distribution of the original sample (36% men and 64% women), and the mean age represented the student population of the University of Alicante and did not differ from the final sample used in this study.

Instruments

To measure general intelligence, we used the factor "g" test, scale 3 of Cattell & Cattell (1994), adapted to the Spanish population by Cordero, De La Cruz and Seisdedos (1997). This collectively applied scale consists of four subtests: series, classification, matrices and conditions that enable an intelligence quotient (IQ) which measures fluid general intelligence to be obtained. The reliability, obtained by the two-halves method, was .78 in the validation sample.

Perceived emotional intelligence was evaluated by the Trait-Mood Scale-24 (TMMS-24), which is a reduced version of the Trait Meta-Mood Scale-48 (TMMS-48) adapted to Spanish by the Malaga research group (Fernández-Berrocal, Extremera & Ramos, 2004). As in the original version, it is based on the formulation of Salovey and Mayer, and measures the skills with which we can be aware of our own emotions and the ability to regulate them. It consists of three dimensions: emotional perception (TMMS attention), understanding of feelings (TMMS clarity) and emotional self-regulation (TMMS control). The subjects were asked to assess the degree to which they agreed with each of the items on a 5-point Likert scale (1 = Strongly disagree, 5 = Strongly agree). The factors were refined and some items on the scale were eliminated for various reasons, which increased its reliability in all its factors: attention (.90), clarity (.90) and repair (86). It also presents an adequate test-retest reliability (Fernández-Berrocal et al. 2004).

We used the items for salary, occupational level and satisfaction from a specific questionnaire designed based on the employment placement surveys used for the CHEERS studies (Schomburg & Teichler, 2006) and the REFLEX report (National Agency for Evaluation and Accreditation, 2007) to assess occupational success. These include detailed information on aspects such as the degree course studied, the transition from education to work, the first job after the degree, employment history, the current job and the skills considered essential when entering the job market. The questionnaire, which contained 43 questions, was structured in 7 sections covering various aspects of the education received, the transition to the labour market, skills and satisfaction, among others. More specifically, the questionnaire includes the following sections: A. Personal information; B. University education; C. First job after graduation; D. Current situation; F. Current job; G. Skills and H. Other data.

The criteria for extrinsic success were obtained from the salary level and the level of the job held at the time the survey was performed. The salary level was measured by gross monthly income coded into seven categories (item 26 of the questionnaire): less than 600 euros (1); between 600 and 1.000 euros (2), between 1.000 and 1.200 euros (3), between 1.200 and 1.500 euros (4), between 1.500 and 1.800 euros (5), between 1.800 and 2.000 euros (6) and more than 2.000 euros (7). The midpoints considered in each category were as follows: 600, 800, 1.100, 1.350, 1.650, 1.900 and 2.200 euros. The job level was measured by regrouping the 28 occupations included in item 23 of the questionnaire into 5 categories, where 1 included less skilled positions such as "agricultural labourer" and 5 included higher level positions such as "company director".

Procedure

In the first phase, which was conducted when the students were taking the final year of their degree, together with other tests and in this order, we applied the TMMS-24 questionnaire and Cattell and Cattell's factor "g" test to an initial sample of 906 subjects. Three years after the first study, during the 2010-11 academic year, the initial sample was reduced to a sample of 339 graduates, who completed a questionnaire designed to gather information on the employment status of the graduates and their access to the labour market. This questionnaire, which took no more than 30 minutes to complete, was completed electronically within three months of the date it was set. The study sample was composed of 130 graduates who said they were working when they answered the questionnaire.

Design and data analysis

This is a predictive correlational design, in which the hierarchical regression procedure is used as an analysis technique, and salary and job level used as criteria to examine the specific contributions of emotional intelligence, notwith-

standing the contributions made by general intelligence. Descriptive and comparison analyses of the means between sexes were also carried out. The data analysis was performed using version 20 of the SPSS package.

Results

Table 1 shows the descriptive analyses of each variable in the total sample and by sex. It also shows the differences in the means between sexes in each variable included in the study, when the sample is not composed of the same percentage of men and women. As can be seen, the values in all the variables are very similar, although for salary, men earn slightly more than women, and the same is true of the relative score for job level. The *t* test results for the difference of means for independent samples show that there are only significant differences in favour of men in age and job level. There are no significant differences in salaries, general intelligence or any of the aspects of the PEI. Levene's test also shows the existence of homogeneity in the variances between men and women in all the variables.

Table 1. Descriptive statistics and mean differences by sex.

	Sex	*M*	*SD*	*t*	*p*
IQ	Men	102.09	16.85	-.10	.92
	Women	102.43	15.03		
	Total	102.31	15.25		
TMMS attention	Men	25.94	5.56	-.18	.85
	Women	26.16	5.76		
	Total	26.34	5.63		
TMMS clarity	Men	26.52	6.43	.03	.98
	Women	26.48	5.48		
	Total	26.47	5.74		
TMMS control	Men	27.77	6.11	-.75	.46
	Women	28.76	6.04		
	Total	28.53	6.08		
Age	Men	23.87	3.78	2.27	.02*
	Women	22.37	2.63		
	Total	22.86	2.94		
Salary	Men	1469.35	555.97	1.22	.23
	Women	1327.62	526.65		
	Total	1372.51	537.54		
Job level	Men	3.51	.85	2.27	.02*
	Women	3.07	.91		
	Total	3.21	.90		

* $p < .05$ (Sig. 2-tailed)

Table 2 presents the correlation coefficients for examining the association between the dimensions of general intelligence, perceived emotional intelligence (TMMS Attention, TMMS clarity, TMMS control) and extrinsic career success measures (salary and job level).

Table 2. Correlation matrix between variables.

	1	2	3	4	5	6
1. IQ	1					
2. TMMS attention	.09	1				
3. TMMS clarity	.07	.26**	1			
4. TMMS control	.11	.14	.52**	1		
5. Salary	.01	-.09	.26*	.27**	1	
6. Job level	.02	-.17	.09	.13	.25*	1

** Correlation is significant at the .01 level (2-tailed). * Correlation is significant at the .05 level (2-tailed).

The results in Table 2 show that the IQ showed no significant relationship with any of the extrinsic career success criteria, and that the dimensions of perceived emotional intelligence, TMMS Control (.27) and TMMS clarity (.26), correlated with salary positively and significantly. None of them is significantly related to job level.

No significant relationships between the dimensions of perceived emotional intelligence and IQ were observed. As regards the relationship of the dimensions of PEI, significant correlations were observed between TMMS clarity and TMMS control (.52) and between TMMS clarity and TMMS attention (26). Finally, the two criteria used, salary and job level, were also significantly related (.25).

We conducted a hierarchical regression analysis to examine the incremental prediction of the dimensions PEI on IQ for the two criteria. For each regression model, the criteria of career success, salary and occupational level were the dependent variables, and IQ and the dimensions of PEI were the independent variables, including sex in a first step, coded as male = 1 and female = 2 and age as covariates (Cohen & Cohen, 1983); IQ was included in step 2 and the dimensions of PEI in step 3.

As shown in Tables 3 and 4, the models explained 14% of the variance for salary ($R = 0.37$, $R^2 = 0.14$; F (3,95) = 4.31, $p < .01$) and 11% for job level ($R = 0.34$, $R^2 = 0.11$; $F(3,95) = 2.08$, $p < 0.10$).

For salary, the dimensions of PEI added 12% of the explained variance. Meanwhile, the increase in the variance explained by the dimensions of PEI were not statistically significant for job level. The individual variable that showed the greatest relationship with salary is TMMS control, whereas the variables that were negatively and significantly related to job level were sex and TMMS attention.

Salary was clearly significantly associated with the dimension of perceived emotional intelligence, TMMS Control ($\beta = .20$; $p < .05$), and job level was significantly related due to the dimension of perceived emotional intelligence, TMMS attention ($\beta = - .21$; $p < .05$) and due to sex ($\beta = - .24$; $p < .05$).

Table 3. Results of the hierarchical regression analysis of salary at the start of the career.

	R	R^2	R^2 corrected	β	ΔR^2	*F*	Sig. *F*. Change	*t*
Step 1: Covariant	.13	.02	.03		.02	.85	.43	
Sex				-.13				-1.29
Age				-.05				-.47
Step 2: General mental ability	.13	.02	.01		.00	.56	.92	
Sex				-.13				-1.28
Age				-.05				-.45
IQ				.01				.11
Step 3: Perceived Emotional Intelligence	.37	.14	.08		.12 **	2.47	.00	
Sex				-.15				-1.49
Age				-.06				-.60
IQ				-.01				-.11
TMMS attention				-.18				-1.73
TMMS clarity				.19				1.65
TMMS control				.20*				1.97
R^2 total		.14						

N.B.: *N* =103. **p* <.05 ***p* <.01

Table 4. Results of the hierarchical regression analysis on job level at the start of the career.

	R	R^2	R^2 corrected	β	ΔR^2	*F*	Sig. *F*. Change	*t*
Step 1: Covariant	.23	.05	.03		.05	2.60	.08	
Sex				-.23*				-2.27
Age				-.03				-.25
Step 2: General mental ability	.23	.05	.02		.00	1.74	.82	
Sex				-.23*				-2.25
Age				-.25				-.23
IQ				.02				.23
Step 3: Perceived emotional intelligence	.34	.11	.05		.06	1.93	.11	
Sex				-.24*				-2.40
Age				-.05				-.48
IQ				.02				.19
TMMS attention				-.21*				-2.03
TMMS clarity				.07				.57
TMMS control				.14				1.18
R^2 total		.11						

N.B.: *N* =103. **p* < .05 ***p* < .01

Discussion

Few studies have analyzed the predictors of career success at the start of the career. In this study, we aimed to test whether two of them, general mental ability, as measured by IQ, and the dimensions of Perceived Emotional Intelligence, which are usually included in other studies with samples with greater professional experience, would also predict career success in the early stages of the career. More specifically, we sought to ascertain whether PEI makes a specific contribution to the prediction of extrinsic career success beyond contribution made by general intelligence. We used two types of extrinsic criteria (salary and occupational level), and found that the starting salary was positively predicted by PEI and more specifically by the TMMS control dimension of PEI; however, the dimensions of PEI fail to make a significant contribution in the case of job level, although the job level was predicted negatively by sex and by the TMMS attention dimension of PEI.

The results show that beyond general intelligence, emotional intelligence contributes to the level of salary received, while this contribution is not significant in the professional level achieved. The results also show that professionals with higher levels of emotional self-regulation (TMMS control) achieve higher incomes and those with lower levels of attention to their own emotions (TMMS attention) achieve a higher occupational level.

Although our hypothesis has only been partially confirmed, it therefore supports the studies that have found incremental validity for emotional intelligence on cognitive skills (Law et al., 2008). Furthermore, although some studies have shown a positive relationship between general intelligence and career success (Dreher & Bretz, 1991; Judge, et al., 1999; O'Reilly & Chatman, 1994), the results of this study are closer to those found in other studies that did not show a relationship between the two constructs (Rode et al., 2008) or only a moderate (Ng et al., 2005) or negative relationship (Ganzach, 1998).

The lack of a contribution by general intelligence to the prediction of the criteria could be due to the type of sample (university graduates who are assumed to have a high IQ), the interaction between IQ and emotional intelligence

(O'Reilly & Chatman, 1994), so that the correlation between the variables and the criteria varies according to the level of intelligence (Cote & Miners, 2006), to the distal nature of IQ compared to emotional intelligence in determining success (Spurk & Abele, 2011), or the type of criteria on which the prediction equations are projected (extrinsic career success versus job performance).

The greatest predictive power of emotional intelligence on general intelligence is possibly located in the unique requirements associated with the responsibilities of the jobs. Positive performance at work depends in many cases on the support, advice and resources provided by others (Seibert, Kraimer & Liden, 2001). In order to obtain this help, it is essential to have certain socio-emotional skills that contribute to job performance, enabling individuals to regulate their emotions in order to deal with stress effectively, work well under pressure, adapt to organizational change, achieve better relations at work, work better within a team and build social capital (Lopes et al., 2006).

Furthermore, the lack of a correlation obtained in this study between general intelligence and emotional intelligence is consistent with the results obtained in other studies (Davies, Stankov & Roberts, 1998; Derksen, et al., 2002, Fox & Spector, 2000) and reinforces the differential validity of emotional intelligence.

This study also shows that the predictors of salary and job level are different - TMMS control for the former and TMMS attention and sex for the latter.

With regard to salary, our results reinforce the importance of emotional regulation. The dimension of TMMS control, involving aspects such as "*having an optimistic outlook, thinking about pleasant things, having positive thoughts or making sure of being in a good mood*", is related to the salary level achieved. The importance of this dimension of EI has been demonstrated with other criteria such as performance at work (Law et al., 2004), entrepreneurial self-efficacy (Salvador, 2008) and life satisfaction (Extremera & Fernández-Berrocal, 2005). Studies that have used other measures of emotional intelligence like the MSCEIT (Lopes et al. 2004; Lopes, et al. 2006, Sevinc, 2001), also present significant correlations between the dimension of emotion management and salary level.

As for job level, the existence of significant negative relationships between it and the perceived emotional intelligence dimension of TMMS attention, described by items such as "*I pay attention to my feelings*" could be explained by the negative impact of excessive attention to one's emotions on overall performance, and therefore on the promotions received.

Sex is also a predictor of job level, with a negative sign, indicating that men reach higher level positions than women at the start of their career. Similar results were found by Rode et al. (2008), for salary. Replication of these results in other studies might among other things reveal some degree of preference for males in recruitment for high-level positions, which could have significant implications for regulations on gender equality. Interestingly, this gender gap is absent in the case of salary levels. The fact that there are only differences between men and women in job level but not in salary or any of the variables related to PEI, except age, suggests that the explanatory variables of the gender effect fall outside the variables included in the study, and therefore the fact that there are more women than men in the study did not influence the results.

Finally, the third dimension of PEI, TMMS clarity, described by indicators such as "*having clear feelings, being able to define them, knowing how one feels and understanding emotions*" does not contribute to obtaining with higher salaries or with a higher professional level at the start of the career.

While acknowledging the practical implications of these results, such as acting as a basis for the development of training activities in social-emotional skills aimed at college students, further empirical evidence to support these findings must be provided, since the significant relationship between the variables considered in this study has not always been apparent (Barchard, 2003; Brackett & Mayer, 2003; Davies, et al. 1998; Sternberg, 2001; Zeidner, Matthews & Roberts, 2003), and neither has the predictive ability of perceived emotional intelligence (Rode, et al. 2008).

When evaluating the results, it is important to consider the strengths and limitations. A first limitation of the study is the specification of the model. Although this study does not test a comprehensive model of the variables related to career success, but rather a model that analyzes the influence of the dimensions of PEI in predicting career success, if relevant variables in this case such as personality are omitted after controlling for the effect of general intelligence, the model may have a specification error which affects the results.

A second limitation of this study is related to the sample size. This study may have lacked sufficient power to corroborate the statistical significance of the relationships that would have been found if a larger sample had been used.

A third limitation, also derived from the sample size, may be the difficulty in disaggregating subsamples by qualification in order to ascertain the possible differential behaviour of the variables studied in different qualifications.

On the other hand, one of the strengths of the study is that it is based on longitudinal data from the same sample of graduates who are working and who were monitored from their university studies until their employment, three years after completing those studies, which enables causal inferences to be made to a great extent.

In order to establish the links between emotional intelligence and career success more precisely, we must take into account the emotional intelligence model on which the type of measure used is based, the inclusion of other variables such as personality as well as overall intelligence, the consideration of possible mediating variables, the separation of independent variables depending on whether they are proximal or distal, and the use of other homogeneous criteria for success.

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