Psicothema

Trait and ability emotional intelligence as predictors of alcohol consumption in adolescents

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Abstract

Background: Past studies have suggested that emotional intelligence (EI) is a new construct that may help to explain alcohol abuse. This study is one of the first to examine the predictive capacity of both trait and ability EI, based on the Mayer and Salovey model, with regards to distinct variables of alcohol consumption in an adolescent population. **Method:** A survey was conducted on 844 school children who completed a self-report and performance-based EI test, as well as a selection of items on alcohol consumption. **Results:** Regression analyses revealed that trait EI was the most predictive. Clarity and emotional Repair showed significant negative correlations with alcohol consumption, as opposed to emotional Attention. Likewise, the abilities of Perceiving and Using emotions were found to be protective factors for consumption in schoolchildren. **Conclusion:** The results suggest that trait and ability EI are complementary dimensions that may help in the understanding and intervention of alcohol abuse in adolescents. The results are discussed in the EI research context, as well as their educational implications and future research lines.

Keywords: Emotional intelligence, self-report, performance test, alcohol, adolescence.

Resumen

Inteligencia Emocional rasgo y habilidad como predictores del consumo de alcohol en la adolescencia. **Antecedentes:** diversas investigaciones muestran que la inteligencia emocional (IE) es un nuevo constructo que puede ayudar a explicar el consumo abusivo de alcohol. El presente estudio es uno de los primeros en examinar la capacidad predictiva de la IE rasgo y de la IE habilidad, basada en el modelo de Mayer y Salovey, sobre diversas variables de consumo de alcohol en población adolescente. **Método:** se realizó una encuesta a 844 escolares que cumplimentaron un autoinforme y un test de rendimiento máximo de IE, así como una selección de ítems de consumo de alcohol. **Resultados:** los análisis de regresión revelaron que la IE rasgo fue la más predictiva. La Claridad y la Reparación emocional mostraron relaciones significativas negativas con el consumo de alcohol, al contrario que la Atención emocional. Asimismo, la habilidad de Percepción y Facilitación emocional resultaron ser factores protectores del consumo en los escolares. **Conclusión:** los resultados sugieren que la IE rasgo y habilidad son medidas complementarias que pueden ayudar en la comprensión e intervención sobre el problema del abuso del alcohol en la adolescencia. Se discuten los resultados en el contexto de la investigación sobre la IE, así como su implicación educativa y futuras líneas de investigación.

Palabras clave: inteligencia emocional, autoinfome, test, alcohol, adolescencia.

Emotional intelligence (EI) is an area of great interest for the study of individual differences and has been shown to have considerable explanatory value in diverse life areas such as mental, psychological and psychosomatic health, both in adults and in adolescents (Martins, Ramalho, & Morin, 2010). The literature suggests that EI is associated with a greater wellbeing and improved adaptive functioning (Brackett, Rivers, & Salovey, 2011; Mayer, Roberts, & Barsade, 2008). In this context, studies have revealed the relevant role of EI with regards to a better psychosocial adjustment in youth (Gascó, Badenes, & Plumed, 2018). Admittedly, adolescence continues to be a less examined area, suggesting that this area may be an important challenge for researchers and clinical and educational advances.

Alcohol is clearly the most widely consumed drug amongst adolescents and is the one that generates the most problems and costs to society (World Health Organization, 2018). Abusive alcohol consumption by youth is one of the main public health problems in Spain (National Plan on Drugs, 2017) and in Europe (European Council, 2017). While levels of drug and alcohol consumption have decreased over recent years, alcohol is still the most widely consumed psychoactive substance, having very high prevalence numbers. In this context, one of the most concerning issues is binge drinking, characterized by the consumption of large quantities of alcohol over short time periods, usually during the weekend, and commonly resulting in a state of drunkenness (Golpe, Isorna, Barreiro, Braña, & Rial, 2017). In Spain, this binge drinking is favored by the so-called *botellón* (Golpe, Barreiro, Isorna, Varela, & Rial, 2017), a phenomenon consisting of alcohol consumption by youth in large groups on the streets. The literature

highlights the fact that abusive alcohol drinking by youth may result in numerous high-risk practices that can affect development, including health, affective, scholastic and legal problems, as well as at-risk sexual relations and dependency disorders in adulthood (Espada, Méndez, Griffin, & Botvin, 2003).

Two meta-analyses refer to the importance of the EI concept as a novel element that can help to explain the consumption of addictive substances. On the one hand, Kun & Demetrovics (2010) conducted a systematic review of works examining EI and addictions, based on 36 research studies. The authors concluded that a lower level of EI was associated with a greater rate of smoking and drug and alcohol consumption. On the other hand, Peterson, Malouff, & Thorsteinsoon (2011), analyzed 11 studies, concluding that a lower rate of EI was significantly related to a higher participation in alcohol consumption, problems resulting from the same and greater consumption levels. However, the majority of the studies were carried out on an adult or university student clinical population, with few studies focusing on the adolescent population. Despite the fact that EI and alcohol consumption in adolescents is a relatively new research field, it is gaining relevance as it is being found that emotional skills can be learned and improved, thereby preventing these detrimental health behaviors (Brackett et al., 2011).

According to the Mayer & Salovey (1997) ability model, EI is defined as "the ability to perceive accurately, appraise and express emotions; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth" (p. 10). Currently, the explicit distinction between two different EI constructs is generally accepted (Petrides, 2011). Trait EI refers to the self-perception of a series of emotional skills that are measured through self-reporting. On the other hand, ability EI refers to the ability to provide correct responses to diverse emotional tasks through maximum performance tests. The first domain refers to the personality area whereas the second refers to the cognitive capacity field. Therefore, the operationalization of one does not have implications on the operationalization of the other and therefore, the literature on these has been conducted independently. Below, the results of some studies assessing EI in a non-clinical population and using instruments based on the Mayer & Salovey ability model (1997) are presented.

Of the findings of the works measuring EI through the use of self-reports, there are negative associations between this factor, the quantity of alcohol (Austin, Saklofske, & Egan, 2004; Tsaousis & Nikolaou, 2005) and problems related to consumption (James, Bore, & Zito 2012) in adult and university populations. On the contrary, other authors have failed to find direct significant correlations between EI and the quantity of alcohol consumed by university students (Ghee & Johnson, 2008; Saklofske, Austin, Galloway, & Davidson, 2007). However, in other studies, regression analyses have revealed that trait EI was a predictive factor of abusive alcohol consumption in university students (Claros & Sharma, 2010; Lana, Baizán, Faya-Ornia, & López, 2015). Similarly, in a study conducted on adolescents, it was observed that a better ability to regulate emotional states predicted lower levels of alcohol consumption, while an increased attention to emotions predicted a higher consumption level (Ruiz-Aranda, Fernández-Berrocal, Cabello, & Extremera, 2006). In another study considering a population between the ages of

16 and 65, higher scores on emotional Clarity and Attention to emotions predicted a lower frequency of alcohol consumption (Cantó, Fernández-Berrocal, Guerrero, & Extremera, 2005). This last result coincides with the findings of another study in which Attention to feelings was found to be a significant predictor of a lower frequency of alcohol consumption in female adolescents (Calero, Barreyro, Formoso, Injoque-Ricle, 2019).

When considering three studies that assessed ability EI based on maximum performance tests, the results revealed that lower scores on EI predicted higher levels of alcohol consumption and related problems in university students (Brackett, Mayer, & Warner, 2004; Rossen & Kranzler, 2009). Similarly, Trinidad & Johnson (2002) found negative associations between EI and the quantity of alcohol consumption in adolescents.

Finally, some studies have assessed a combination of both EI constructs, trait and ability, which allows us to partially analyze the contribution of EI to the understanding of consumption. Along these lines, Brackett & Mayer (2003) found negative correlations between trait EI and alcohol and drug consumption in university students. In other studies, higher levels of trait and ability EI predicted a lower consumption of drugs and alcohol, as well as lower levels of related problems in students (Ruiz-Aranda et al., 2010; Shutte, Malouff, & Hine, 2011).

Despite the importance of these results, most of these research studies have been conducted on adult populations, with few studies examining the implications of EI and alcohol consumption on adolescents. Similarly, only a few studies have combined the assessment of trait EI and ability EI, offering a more thorough understanding of its role in adolescent consumption. Finally, some of the most widely used variables in the studies include the number of alcohol units and the number of days of consumption per month, making it necessary to extend the study to long term consumption (yearly).

Given the widespread concern about abusive alcohol consumption in youth, and due to the lack of studies analyzing the implication of EI on the same, this work proposes to analyze the relationship between trait and ability EI on diverse variables of alcohol consumption in students between the ages of 12 and 16. The main objective of this study is to analyze the predictive role of trait EI and ability EI, based on the model proposed by Mayer & Salovey (1997), with respect to being a consumer of alcohol (or not being a consumer), the frequency of consumption, binge drinking, participation in group street drinking (*botellones*) and drunkenness.

Based on the past studies, the following working hypotheses have been proposed for this study: the emotional dimensions of trait EI and ability EI will be associated with the results of alcohol consumption in adolescents and shall be complementary explanatory factors in the understanding of this problem.

Method

Participants

This study relied on the participation of 844 Spanish school students, aged between 12 and 16 (M=14.49; SD=1.17) with a balanced gender distribution (51.8% female and 48.2% male). To configure the sample, stratified random sampling was carried out in order to assure the representativeness of students going to charter schools (51.4%) and public schools (48.6%), located in urban (64%) and rural (36%) settings.

Instruments

Socio-demographic data. Gender, age and academic school year were collected.

A questionnaire on alcohol consumption. Five items were adapted from the Survey on Drug Use in Secondary Education Students, (ESTUDES 2014-2015) (National Plan on Drugs, 2016) dichotomizing the response items. The students were asked about alcohol consumption (Yes, I have consumed /No, I haven't consumed). Information was obtained regarding the frequency of their consumption, (<40 days; >=40 days), participation in group street drinking (*botellones*) (less than once a month, once or more per month) and the frequency of drunkenness (<40 days; >=40 days) over the past year. Similarly, data was collected on intensive alcohol consumption or binge drinking, understood to be the consumption of 5 or more drinks, beers or alcoholic beverages in a period of approximately two hours over the past month (Up to 5 days; =>6 days).

Trait Meta-Mood Scale (TMMS; Salovey et al., 1995, version adapted to the Spanish language by Fernández-Berrocal, Extremera, & Ramos, 2004). This questionnaire consists of 24 items and offers an indicator of the levels of trait emotional intelligence. Its items are assessed using a Likert-like scale of 5 points ranging from "Strongly disagree" (1) to "Strongly agree" (5). It consists of three sub-factors: Attention to one's own feelings, emotional Clarity and Repair of negative emotional states. This instrument is analyzed with respect to the total of the scores obtained in each of the three subscales or dimensions (8 items per factor) and does not offer an overall score. The Cronbach's alphas resulting for this study were .87 for Attention, .85 for Clarity and .82 for Repair.

Test of Emotional Intelligence of the *Fundación Botín* for Adolescents (TIEFBA; Fernández-Berrocal, Ruiz-Aranda, Salguero, Palomera, & Extremera, 2011). This battery, which is directed at adolescents (12-17 years of age) offers measurements of levels of performance in each of the four emotional abilities of the Mayer and Salovey theoretical model (1997). The test consists of 143 items that propose emotional situations through eight brief cartoons with characters. A total of 7 scores are possible: four branch scores, two area scores and the total score. The four branch scores have been used in this study in order to obtain more concise results, to help in future interventions: Perception, Facilitation, Understanding and Managing emotions. Cronbach alpha rates of .86 were obtained for Perception, .78 for Facilitation, .80 for Understanding and .76 for Managing.

Procedure

This study was conducted in compliance with the ethical principles of the Helsinki Declaration (Manzini, 2000). An informative document was sent to the schools and to the parties that are legally responsible for the students, in order to obtain their signed authorization for participation in the study. Also, the informed consent of the students and their willingness to participate in the study was assured. A researcher accompanied the students in the classroom, to ensure their anonymity throughout the process. Numeric codes were used for each of the questionnaires to prevent the personal identification of the students. Similarly, once the test was completed, the questionnaires were collected in sealed envelopes. The completion of the questionnaire on paper with pen was carried out in two, non-consecutive sessions lasting 45 minutes each.

Data analysis

For the data analysis processing, the SPSS Statistics 24.0 package was used. The study used a short quantitative and correlational methodology. Descriptive and correlation analyses were performed on all of the variables. Binary logistic regression models were constructed to predict the dependent variables of alcohol consumption based on the trait and ability EI factors. All of the factors having significant bivariate correlations from prior analyses were introduced in the models. The backward stepwise model was used, extracting the variables one by one until achieving a model in which all of the predictors were significant (at least for $p<.05$). First, models were constructed with the three independent variables of trait EI and then, others were created with the four branches of ability EI. Finally, joint models were created including the factors that had been previously found to be significant for each of the alcohol consumption variables.

Results

Prevalence of alcohol consumption in adolescents

Table 1 presents the most significant data on the prevalence of alcohol consumption in the study sample. As we can see, 4 out of every 10 adolescents drank alcohol and drank in a periodic manner over the past 12 months. Approximately 7 out of every 10 consumers drank heavily for 6 days or more over the last month. Almost 6 out of every 10 consumers participated in group street drinking once or more per month over the last year. Finally, and in a similar proportion, almost 6 out of every 10 consumers reported having gotten drunk 40 days or more over the past year. Generally speaking, the results coincide with those from the ESTUDES survey (National Plan on Drugs, 2016).

Correlations between alcohol consumption variables and trait and ability EI

Below (Table 2), we can see the minimums-maximums and standard deviations of the EI variables. On the one hand, the Pearson's *r* correlations indicate significant negative associations between the trait and ability EI variables and alcohol consumption, with the exception of Attention to one's own feelings, which correlated significantly and directly. It is noteworthy that the highest correlations were found between the factors of emotional Perception

Table 1
Prevalence of alcohol consumption

Alcohol	Response categories	Percentage	N
Alcohol consumption	Yes, I have consumed No, I haven't consumed	40.8 59.2	798
Consumption over last year	40 days or more Less than 40 days	67.8 32.2	323
Intensive consumption last month	6 days or more Up to 5 days	67.4 32.6	323
Street drinking (*botellón*) per year	Once a month or more Less than once a month	58.5 41.5	323
Drunkenness episodes per year	40 days or more Less than 40 days	57.2 42.8	323

and consuming alcohol sometimes (r= -.401, p< 0.01). Attention to one's own feelings and consumption over the past year, (r= .326, p< 0.01) as well as intensive alcohol consumption per month (r= .308, p< 0.01). Finally, emotional Repair and group street drinking per year (r= -.265, p< 0.01) as well as drunkenness per year (r= -.423, p< 0.01).

Prediction of alcohol consumption based on the trait and ability EI variables

In this section, the results obtained for the prediction of alcohol consumption based on the trait and ability EI variables are presented. In order to synthesize the abundant quantity of data, only the five final models of statistical significance that explain the greatest percentage of criterion variance are presented.

First, the model created for the alcohol consumption dependent variable permits the correct estimation of 82.5% of the cases. The independent variables of Attention, Clarity, Repair, Perception and emotional Facilitation formed a part of the equation. Nagelkerke R² statistic estimated an adjustment value of 0.528. Second, when using the criteria of alcohol consumption per year, a correct model estimation is achieved in 73.1% of the cases, with the independent variables Attention, Repair and emotional Perception forming a part of the equation. The variability explained by the model was 19.1% (Nagelkerke). For the dependent variable of intensive alcohol consumption, the model allowed for the correct estimation of 65.6% of the cases, with Attention, Repair and emotional Perception forming part of the equation. The Nagelkerke R² statistic estimated an adjustment value of 0.98. Fourth, the predictive model for the criteria variable group street drinking (*botellones*) per year, permitted the correct estimation of 66.7% of the cases, with the independent variables of Repair and Perception forming part of the equation. The variability explained by the model was 16% (Nagelkerke). Finally, the predictive model for the dependent variable of drunkenness per year permitted the correct estimation of 73.5% of the cases, with the independent variables of Attention, Repair and Perception forming part of the equation. The variability explained by the model was 35.1% (Nagelkerke).

Discussion

The findings of this study offer evidence regarding the importance of emotional aspects on the prediction of abusive alcohol consumption in adolescents. Both constructs of EI shed light on the results, acting as complementary explanatory factors in the understanding of this problem. Trait EI was more predictive

Table 3
Prediction of alcohol consumption based on trait and ability EI

	B	S.E.	Wald	OR	CI 95% of the OR
Alcohol consumption					
TIEFBA – Perception	-0.066	0.009	49.31**	0.94	0.92 / 0.95
TMMS – Attention	0.093	0.014	42.09**	1.10	1.08 / 1.13
TMMS – Clarity	-0.082	0.018	21.26**	0.92	0.89 / 0.95
TMMS – Repair	-0.073	0.018	17.43**	0.93	0.90 / 0.96
TIEFBA – Facilitation	-0.026	0.008	9.50**	0.98	0.96 / 0.99
Population constant	10.102	1.262	64.08**	–	–
Consumption last year					
TMMS – Attention	0.068	0.019	12.44**	1.07	1.03 / 1.11
TMMS – Repair	-0.059	0.020	8.50**	0.94	0.91 / 0.98
TIEFBA – Perception	-0.025	0.012	4.62 *	0.98	0.95 / 0.99
Population constant	2.439	1.426	2.92 *	–	–
Intensive consumption last month					
TMMS – Attention	0.063	0.015	18.60**	1.06	1.04 / 1.10
TMMS – Repair	-0.034	0.019	3152*	0.96	0.93 / 1.0
TIEFBA – Perception	-0.013	0.005	8.04**	0.98	0.97 / 0.99
Population constant	2.605	1.364	3.64*	–	–
Street drinking *(botellón)* per year					
TMMS – Repair	-0.041	0.011	18.44**	0.96	0.94 / 0.98
TIEFBA – Perception	-0.083	0.019	13.33**	0.92	0.89 / 0.96
Population constant	5.849	1.149	25.90**	–	–
Drunkenness episodes per year					
TMMS – Repair	-0.113	0.023	24.45**	0.89	0.95 / 0.93
TIEFBA – Perception	-0.053	0.013	16.94**	0.95	0.97 / 0.97
TMMS – Attention	0.074	0.020	13.13**	1.08	1.03 / 1.12
Population constant	5.278	1.565	11.38**	–	–

Note: B = coefficient; S.E. = standard error; *OR = odds ratio*; C.I. = confidence interval at 95%; TMMS= Trait Meta Mood Scale; TIEBDA= Test of emotional intelligence by the Fundación Botín for adolescents
* p<.05; ** = p<.01

of alcohol consumption than ability EI, with the exception of the emotional Perception ability, which was one of the variables that was found to most closely relate to alcohol consumption.

As for the predictive capacity of the three trait EI factors, the results of the data analysis reveal that it is more likely for adolescents with higher scores on Attention to their own emotions to consume alcohol, and they do so with greater frequency and intensity, reporting a higher number of episodes of drunkenness.

Table 2
Pearson correlations between the EI variables and alcohol consumption

	Sometimes	Last year	Intensive month	Street drinking year	Drunkenness year	Min/Max	M	SD
1.TMMS Attention	.381**	.328**	.308**	.236**	.360**	8-40	25.34	7.77
2.TMMS Clarity	-.359**	-.193**	-.218**	-.194**	-.249**	8-40	22.38	7.40
3.TMMS Repair	.343**	.271**	.219**	.265**	.423**	10-40	24.56	7.45
4.TIEFBA Perception	.401**	.185**	.234**	.233**	.278**	75-129	100.38	13.07
5.TIEFBA Facilitation	.324**	.135*	.203**	.207**	.157**	72-139	104.21	14.64
6.TIEFBA Understanding	.238**	.107	.216**	.218**	.103	77-144	104.06	14.48
7.TIEFBA Managing	.253**	.099	.132*	.158**	.163**	69-114	91.29	8.91

Note: TMMS= Trait Meta Mood Scale; TIEFBA= Test of emotional intelligence of the Fundación Botín for adolescents
* p<.05; ** = p<.01

These data are consistent with past studies that have revealed the relationship between alcohol consumption and higher levels of emotional Attention in adolescents (Ruiz-Aranda et al., 2010; Ruiz-Aranda et al., 2006). The tendency to focus the attention on one's own emotional states allows us to follow the process of our emotions, but it is not always adaptive, and may lead to increased ruminative thinking and a negative emotional state. The literature has suggested that the lack of a significant relationship between the emotional Attention factor with emotional Clarity and Repair of negative emotional states, observing positive associations between the factors of Attention to one's own emotions, anxiety and depression (Fernández-Berrocal, Alcaide, Extremera, & Pizarro, 2006). The fact that during adolescence one focuses his/her attention excessively on their feelings without being able to clarify what is felt at each moment or being able to internally regulate their emotions, may explain the consumption of alcohol as a way of mitigating adverse emotional states.

On the other hand, in this study it was found that a greater level of emotional Clarity to discriminate between moods or emotions predicted lower probabilities of consuming alcohol, coinciding with the past results of Cantó et al. (2005) in a population of 16 to 65 year olds. This work also found that school children with greater abilities for Repair of negative emotional states reported not only a lower probability of consuming alcohol and a lower frequency of the same, but also a lower level of intensive consumption, less participation in group street drinking and a lower frequency of episodes of drunkenness. These reports support the results of past studies on adolescent populations (Ruiz-Aranda et al., 2010; Ruiz-Aranda et al., 2006). If the individual is not able to clarify how they feel at every moment, or to internally regulate their emotions, it is more likely that they will opt for less appropriate paths, such as the consumption of addictive substances in order to face their adverse emotional states (Trinidad & Johnson, 2002).

As for the four branches of ability EI, predictive models were obtained mainly with emotional Perception and only one of these included the ability of emotional Facilitation. Adolescents having a greater ability to perceive the emotions of others were found to have lower probabilities of consuming alcohol, reported a lower frequency of use and intensive use, and were less likely to participate in group street drinking (*botellones*) and have episodes of drunkenness. These results are supported by past studies that reveal that students with greater abilities to perceive the emotions of others reported lower alcohol consumption levels (Brackett et al., 2004; Ruiz-Aranda et al., 2010). Some authors have suggested that adolescents with greater difficulties in perceiving the emotions of others may have more difficulties when it comes to identifying group pressure and in managing the discrepancies between their motivations and those of others. At these ages, peers are fundamental references for adolescents, who are especially vulnerable to consuming in the face of pressure by the same (Trinidad & Johnson, 2002). On the other hand, the emotional Facilitation of thought ability, which requires a certain degree of knowledge of the role of emotions when making decisions or carrying out distinct cognitive tasks, predicts the act of having consumed alcohol. Emotions serve to improve thought when directing our attention to relevant information and facilitating a change in perspective, the creation of judgments and the considering of new perspectives of problems (Mayer & Salovey, 1997). It is possible that negative moods may prevent adolescents from effectively resolving problems of their everyday life, thus preventing them from making decisions

that would favor their wellbeing. This may increase the risk of a greater participation in alcohol consumption during these young ages. These results coincide with those of Brackett et al. (2004), where this ability was negatively associated with greater quantities of alcohol consumption, the use of illegal drugs, a greater presence of deviant behavior and poorer social skills in adult male subjects.

On the other hand, despite the importance of Understanding and Managing emotions when interpreting emotions and regulating them, these abilities were not found to be explanatory factors of the alcohol consumption variables, although they were associated slightly and inversely with them. In prior studies, Trinidad & Johnson (2002) found a negative association between the ability of emotional Management and the frequency of weekly alcohol consumption in a sample of adolescents, although it should be noted that this study employed a distinct instrument. No past studies have been found that noted the role of emotional Understanding in the relationship with alcohol consumption, since the few studies conducted have used the total ability EI score or the calculation of its branches (experiential and strategic area).

This study attempts to offer data to the study of the influence of EI on distinct indicators of alcohol consumption in adolescents. It can be said that youth having greater abilities to perceive external emotions and to attend to their own emotions in a moderated manner, who are capable of using emotional information to facilitate cognition and to use strategies to repair negative emotional states have lower chances of engaging in elevated or excessive levels of alcohol consumption. In other words, they are more capable of managing their emotions in an adaptive manner, facilitating a better psychological adjustment (Gascó et al., 2018) and it is possible that they do not need to use other types of external regulators such as alcohol in order to tackle the everyday events and stressful occurrences taking place at these ages.

Although the risk factors associated with alcohol consumption are many and often cannot be modified, the abilities including EI may be learned and improved, thereby helping to prevent future behavior that is considered to be a health risk (Mayer et al., 2008). So, some authors have suggested the need to find new evidence regarding adolescent consumption prevention programs that may improve them and that are related with the goal of optimizing resources (Espada, Gonzálvez, Orgilés, Lloret, & Guillén-Riquelme, 2015). The improvement of these skills may be a relevant aspect in the prevention of risk behavior and psychological and emotional problems resulting from consumption at an early age. Finally, it should be noted that the results obtained in this study offer empirical support to intervention programs which, focusing on EI training, attempt to prevent abusive alcohol consumption by youth.

There was one major limitation of this work. The cross sectional nature of the study makes it difficult to determine the causal relations between the factors under study. Therefore, we suggest that longitudinal studies be carried out in order to permit the identification of the presence and the direction of potential causal relationships. Future studies should continue to advance the results obtained here and should include additional variables such as gender, age and other addictive substances.

Acknowledgements

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