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Spanish adaptation and validation of the Rutgers Alcohol Problem Index (RAPI)¹

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ABSTRACT. In Spain there are no screening instruments specifically for young people that would facilitate the early detection of alcohol-related problems, which are a substantial problem of public health. The main goal of this study was to adapt the Rutgers Alcohol Problem Index (RAPI) to Spanish population, as well as to analyze its psychometric properties, reliability and predictive validity. The RAPI was applied at the same time to 569 students (aged 16-18), that had drunk alcohol in the last year, at nine randomly-selected schools in the Principality of Asturias (northern Spain). The factor structure, reliability and predictive validity of the instrument were analyzed. Validity was analyzed by studying the relation between the results obtained and patterns of use for alcohol and other substances, as well as with the psychopathological information provided by the Brief Symptom Inventory (BSI). The RAPI showed a unidimensional factor structure, high reliability (Cronbach's alpha = .87) and good capacity (sensitivity = 81.2%; specificity = 72.2%) for identifying problematic patterns of alcohol and other substance use and high levels of psychopathological distress. The Spanish version of the RAPI is reliable and valid for detecting alcohol-related problems in adolescents and young people.

KEYWORDS. Alcohol. Adolescents. RAPI. Screening. Instrumental study.

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RESUMEN. No existen en España instrumentos de screening especialmente dirigidos a jóvenes que faciliten la detección precoz de los problemas asociados al consumo de alcohol, que son un grave problema de salud pública. El objetivo principal de este estudio ha sido adaptar el *Rutgers Alcohol Problem Index* (RAPI) a la población española, así como analizar sus propiedades psicométricas, fiabilidad y validez predictiva. El RAPI fue aplicado a 569 estudiantes del Principado de Asturias de 16 a 18 años seleccionados al azar, que habían bebido alcohol en el último año. Se analizó la estructura factorial, fiabilidad y validez predictiva de la prueba. Para analizar la validez se estudió la relación entre los resultados de la prueba y los patrones de consumo de alcohol y otras sustancias, así como la psicopatología asociada de acuerdo con el *Brief Symptom Inventory* (BSI). El RAPI mostró una estructura factorial unidimensional, una alta fiabilidad (alfa de Cronbach = 0,87) y una buena capacidad (sensibilidad = 81,2%; especificidad = 72,2%) para determinar patrones de consumo problemáticos de alcohol y otras drogas, así como un mayor malestar psicopatológico. La versión española del RAPI es fiable y válida para detectar los problemas derivados del consumo de alcohol en jóvenes y adolescentes.

PALABRAS CLAVE. Alcohol. Adolescentes. RAPI. Screening. Estudio instrumental.

The results of the National Survey on the use of drugs in secondary school students (Plan Nacional sobre Drogas, 2009) show that alcohol is the most widely used substance among Spanish young people. Among those aged 14 to 18, 81.2% have used alcohol at some time in their life, 72.9% have done so in the past year, and 58.5% have used it in the past month. In Europe, more than 90% of school students aged 15-16 have used alcohol in their lifetime, 13% have been drunk more than 20 times in their life and 18% have practiced binge-drinking (5 or more drinks in a single session) three times or more in the past month (Anderson and Baumberg, 2006).

Experimentation with alcohol and other drugs during adolescence is widespread and broadly accepted in today's society; indeed, it has become a normative behavior or a rite of passage to adulthood (Oliva, Parra, and Sánchez-Queija, 2008). The high levels of alcohol use in minors constitutes a considerable public health problem (Spath, Greenberg, and Turrise, 2008), especially if we take into account that a large percentage of young people display patterns of intensive drinking which surpass the threshold for risks to health (Cortés Tomás, Espejo Tort, Martín del Río, and Gómez Iñiguez, 2010; Salamó Avellaneda, Gras Pérez and Font-Mayolas, 2010).

Drinking at an early age is associated with problems of school performance, risk behaviors such as unprotected sex, dangerous driving, violent behavior and vandalism and use of other drugs (Blay *et al.*, 2010; Estévez and Emler, 2011), as well as blackouts or tolerance (Chartier, Hesselbrock, and Hesselbrock, 2011). Early use of alcohol is also related to consumption of greater quantities and the development of dependence (Grant, Stinson and Harford 2001). Alcohol is the most dangerous drug if one takes into account the harm it can cause to users and to others (Nutt, King, and Phillips, 2010). Even so, just one in ten adolescents experiencing such problems receives treatment (Clark, Horton,

Dennis, and Babor, 2002). This may be due to a lack of recognition of the problem and to additional barriers faced by this population (Johnson, Stiffman, Hadley-Ives, and Elze, 2001). Given such a situation, one of the most urgent necessities is the availability of screening instruments for early detection of the problems presented by youngsters who abuse alcohol, so as to facilitate access to early intervention programs.

Outside our country there are standardized instruments, such as the Adolescent Alcohol Involvement Scale (AAIS; Mayer and Filstead, 1979), the ADI (Adolescent Drinking Index; Harrell and Wirtz, 1989) or the PESQ (Personal Experience Screening Questionnaire; Winters, 1992), which provide clinically relevant information about problematic drinking in adolescents, contributing to the assessment and treatment process. The RAPI (Rutgers Alcohol Problem Index), by White and Labouvie (1989), is relatively brief (23-item) and easily applied instrument that has been extensively used. Basically a self-report tool, it can also be applied by an interviewer (in cases where participants have reading problems) or even by computer. Its goal is to obtain detailed information on all aspects of the life of individuals damaged by problem drinking (delinquency, family life, neuropsychological functioning, physical problems, psychological functioning and social relations), with a view to intervening as early as possible and minimizing or eradicating the problems. This instrument has been validated in both clinical samples (14-18 years; White, Conlin, Labouvie, Filstead and Pandina, 1988) and non-clinical samples (12 and 21 years; White and Labouvie, 1989). The RAPI has also been applied to university students and young adults (Baer, Kivlahan, Blume, McKnight, and Marlatt, 2001; White, Labouvie, and Papadaratsakis, 2005), as well as forming part of epidemiological and longitudinal studies in countries such as New Zealand, Norway, Russia, and Finland (Fergusson, Swain-Campbell, and Horwood, 2002; Kuposov, Ruchkin, and Sidorov, 2002; Pedersen and Skrondal, 1998; Viken, Kaprio, and Rose, 2007). Mean values range from 21 to 25 points in clinical samples (14-18 years) and from 4 to 8 points in non-clinical samples (15-18 years; White and Labouvie, 1989). The results, on the other hand, can also be grouped in terms of other time periods (*e.g.*, the last 3 or 6 months), depending on the objectives of each study.

The psychometric data obtained in studies carried out with the RAPI indicate that it is a reliable and valid instrument, with high internal consistency ($\alpha = .92$); in people who consume large quantities of alcohol it shows strong correlations ($r = .75 - .95$) with the DSM-III-R criteria for disorders related to substance abuse (White and Labouvie, 1989). In the United States there is currently a Spanish translation of the RAPI, created with the aim of assessing the negative consequences of alcohol use among Hispanic university students who speak Spanish (Orona, Blume, Morera, and Pérez, 2007). However, in Spain there is no adaptation of the RAPI that assesses problematic drinking in Spanish adolescents.

The aim of the present instrumental study (Carretero-Dios and Pérez, 2007; Montero and León, 2007) is to adapt the RAPI to Spanish population, as well as to analyze its psychometric properties, reliability and predictive validity. It is essential to develop standardized assessment instruments adapted to the young and adolescent population in all areas of psychological assessment (Ortet *et al.*, 2011). In particular, a standardized screening instrument that provides valid and reliable information on the consequences

of alcohol use in young people is a fundamental requirement for successful early detection and intervention in adolescence.

Method

Participants

The initial study sample was made up of 1,000 high school and technical/vocational courses (*Bachillerato* and *Formación Profesional*) at 9 schools in the Principality of Asturias (northern Spain), selected at random. After screening by means of the Oviedo Infrequency Scale (Fonseca-Pedrero, Paino-Piñeiro, Lemos-Giráldez, Villazón-García, and Muñiz, 2009), 130 questionnaires were discarded because they were incomplete or had been filled in without sufficient attention or erratically. A total of 870 valid questionnaires was obtained, of which 636 were selected because the respondents in question were aged between 16 and 18.

The final sample was made up of 569 participants who reported having consumed alcohol in the 12 months prior to the assessment, and who therefore filled out the RAPI. Mean age was 16.76 years ($SD = 0.76$; 54.1% boys and 45.9% girls). The majority of the participants (92.1%) were of Spanish nationality, and 77.3% lived with both parents. As far as educational courses were concerned, 45.5% were in the first year of high school (1^o de Bachiller), 32.9% were in the second year (2^o Bachiller), 19% were taking medium-level vocational courses (*Ciclo Formativo de Grado Medio*) and 1.9% were in higher-level vocational education (*Ciclo Formativo de Grado Superior*), while the remaining 0.7% were doing other types of studies. The majority of fathers and mothers (42.8% and 48.7%, respectively) had at least a high school education.

Instruments

The questionnaire had the following sections:

- Sociodemographic data. This section requested information on age, sex, nationality, school year or course and parents' educational level (none/primary, secondary, and higher).
- RAPI (White and Labouvie, 1989). This was made up of 23 items with a Likert-type response format of 0 to 3, in which participants stated how many times a certain alcohol-related event had occurred in their life over the past year, marking 0 if it had never happened, 1 if it had happened once or twice, 2 if it had occurred 3-5 times, and 3 if it had occurred more than five times. This response format was maintained in the process of adaptation of the instrument so as to guarantee that the items were similar in both content and format to those of the original version.
- Substance use. Use of drugs among participants was assessed using the structure of the items from the ESPAD (European School Survey Project on Alcohol and Other Drugs, 2007) for prevalence (lifetime, past year and past month) of alcohol, tobacco and other drugs. Age at onset of use was also assessed for each substance.

- Problems associated with use of alcohol. The presence of alcohol-related disorders was assessed, including abuse and dependence. For this purpose we used items based on the DSM-IV-TR criteria (American Psychiatric Association, 2000).
- Psychopathological information. The Brief Symptom Inventory (BSI; Derogatis, 1993) was used to assess the possible existence of psychopathological disorders.

Procedure

Data were obtained through the application in the classroom context of a computerized questionnaire developed with the LimeSurvey® software. By means of this software, respondents were alerted if they left questions out, and were prevented from returning the questionnaire unless all the items were answered. Participants were given guarantees of total confidentiality and anonymity.

The translation and back-translation of the RAPI from English to Spanish was carried out by experts, and following the guidelines of the ITC (International Test Commission, 2010). So that the two versions would be equivalent, the adaptation process also took into account possible cultural and linguistic differences between the different populations in which the RAPI was applied. The result can be seen in Appendix 1.

Data analysis

First of all, we carried out a descriptive analysis of each one of the questionnaire items. An Exploratory Factor Analysis was performed at the item level with the aim of revealing their distribution in the sample, once it had been confirmed that it was viable to carry out Exploratory Factor Analysis with the data obtained (based on the scores provided by the Kaiser-Meyer-Olkin Index and Bartlett Sphericity Test). In selecting the number of factors we took into account items with factor weights above .30, the screeplot, the communalities and the percentage of variance explained by the factor structure.

Analyses of reliability and predictive validity were also carried out. For the reliability analyses we calculated the Cronbach's alpha for the whole scale, once its one-dimensional nature had been confirmed. As regards predictive validity, we used binary logistic regression to calculate the predictive value of the RAPI test in relation to alcohol abuse and dependence according to the DSM-IV-TR criteria. Subsequently, we analyzed the ROC curve in order to determine the optimum cut-off point of the total score for maximizing the sensitivity and specificity of the RAPI in detecting the presence of both abuse and dependence. We calculated the capacity of this cut-off point for detecting significant differences ($p < .05$) in age at onset of alcohol use and drunken episodes, in frequency of alcohol use and drunkenness (lifetime, past year and past month), and in use of cannabis and other drugs. Finally, we analyzed whether there were any statistically significant differences in the scores provided by the BSI that might be related to the results previously obtained in the RAPI. In all cases we calculated the effect sizes of the differences found, using Cohen's d in the case of Student t and Cramer's Phi for the analyses carried out with Chi-squared.

Results

Alcohol use

Mean age at onset of alcohol use was 14.18 years ($SD = 1.36$; range: 10-18). Lifetime prevalence of alcohol use was 92% for the total sample of participants aged 16 to 18 ($n = 636$). Likewise, prevalence of alcohol use in the past 12 months and over the last 30 days was very high, with scores of 89.5% and 77.7%, respectively. The data obtained are similar to those presented by the Plan Nacional sobre Drogas (2009) survey for the same age range.

Descriptive results of the RAPI

Table 1 shows the results of the descriptive analysis of the 23 items making up the questionnaire. The highest mean score obtained was for item 21 ($M = 0.82$; $SD = 0.86$) and the lowest was for item 22 ($M = 0.04$; $SD = 0.25$).

TABLE 1. Descriptive Analysis of the RAPI Items ($N = 569$).

Items RAPI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Mean	0.33	0.42	0.51	0.13	0.51	0.58	0.08	0.40	0.58	0.05	0.23	0.05	0.09	0.10	0.45	0.09	0.52	0.20	0.30	0.13	0.82	0.04	0.32
Standard deviation	0.73	0.75	0.87	0.46	0.81	0.89	0.37	0.83	0.99	0.30	0.61	0.30	0.40	0.41	0.82	0.35	0.73	0.55	0.66	0.50	0.86	0.25	0.71

Factor structure

The Kaiser-Meyer-Olkin Index value obtained was .885 and the Bartlett Sphericity test yielded a χ^2 value of 3,471.62 ($p < .001$). Exploratory Factor Analysis initially yielded 6 factors with an eigenvalue higher than 1. However, the results of the principal components analysis without rotation indicated that all the items had a factor weight higher than .30 in Factor 1, with a total explained variance of 27.8%. As regards the communalities, they were all in the range .41 to .66. After analysis with oblimin rotation there emerged a two-factor structure that included 8 items with factor weights higher than .30 in two factors; the correlation between them was moderately high ($r = .42$; $p < .05$). Given this correlation and the absence of theoretical logic in the formation of the two factors, the two-factor structure was finally discarded, and the one-dimensional structure selected instead.

TABLE 2. Factor Structure of the RAPI (Spanish adapted version).

RAPI Items	Component I
(1) No ser capaz de hacer los deberes o de estudiar para un examen	.45
(2) Meterte en peleas con otra gente (amigos, familiares, extraños,...)	.59
(3) Perderte ciertas cosas porque te has gastado demasiado dinero en alcohol	.59
(4) Ir a la escuela o al trabajo bajo la influencia del alcohol o borracho	.44
(5) Avergonzar a alguien	.59
(6) No cumplir con tus responsabilidades	.67
(7) Que tus familiares te eviten	.32
(8) Sentir que necesitas más alcohol del que normalmente consumías para lograr los mismos efectos	.55

TABLE 2. Factor Structure of the RAPI (Spanish adapted version). (Cont.).

<i>RAPI Items</i>	<i>Component I</i>
(9) Intentar controlar tu consumo de alcohol (beber sólo en ciertos momentos del día o en ciertos sitios, cambiar el patrón de consumo,...)	.40
(10) Tener síntomas de abstinencia (es decir, ponerte malo porque has parado o reducido el consumo de alcohol)	.35
(11) Haber notado un cambio en tu personalidad	.55
(12) Sentir que tenías un problema con el alcohol	.49
(13) Haber perdido un día o parte de un día de colegio o de trabajo	.39
(14) Querer parar de beber pero no poder	.49
(15) Encontrarte de repente en un lugar al que no recuerdas haber llegado	.66
(16) Desmayarte o perder el conocimiento	.47
(17) Tener una pelea, discusión o mal rollo con un amigo	.61
(18) Tener una pelea, discusión o mal rollo con un familiar	.54
(19) Seguir bebiendo cuando te prometiste no hacerlo	.56
(20) Sentir que te estabas volviendo loco	.54
(21) Pasar un mal rato	.58
(22) Sentirte física o psicológicamente dependiente del alcohol	.47
(23) Que un amigo, vecino o familiar te haya dicho que dejes de beber o que bebas menos	.55

Reliability

The Cronbach's alpha coefficient obtained for the RAPI questionnaire as a whole was .87. Discrimination indices were higher than .30 in all cases except for those of items 10 (i.d.: .27) and 7 (i.d.: .27).

Predictive validity

The results of the logistic regression indicated that score on the RAPI has an odds ratio of 1.17 (CI95%: 1.14 – 1.21, $p < .05$) as regards alcohol dependence, and of 1.14 (CI95%: 1.10 – 1.17, $p < .05$) as regards abuse, according to the DSM-IV-TR criteria.

The ROC curve indicates that a RAPI score of 7 points maximizes the sensitivity and specificity of the questionnaire for the detection of either diagnosis. This score provides a sensitivity of 81.9% (CI95%: 74 – 89.7) and of 73.1% (CI95%: 65.3 – 81) for the detection of dependence and abuse, respectively, and a specificity of 71.3% (CI95%: 67.1 – 75.5) for dependence and of 72.2% (CI95%: 67.9 – 76.5) for abuse.

The cut-off point found emerged as useful for detecting statistically significant differences ($p < .05$) in alcohol use between participants with scores above and below that threshold. Specifically, scores of over 7 are consistent with those referring to the number of occasions in which the adolescent has been drunk in his/her life ($p = .01$, $t = -2.51$ and $d = 1.17$), in the past year ($p = .03$, $t = -2.17$ and $d = 1.11$) and in the past month ($p = .03$, $t = -2.17$ and $d = 0.86$), as well as with age at first drunken episode ($p = .002$, $t = -3.127$ and $d = 0.53$) and at first alcoholic drink ($p = .03$, $t = -2.17$ and $d = 0.63$), and with number of times he/she has consumed alcohol in his/her life ($p = .03$, $t = -2.17$ and $d = 0.68$), in the last 12 months ($p = .03$, $t = -2.17$ and $d = 0.76$) and in the last 30 days ($p = .03$, $t = -2.17$ and $d = 0.72$). All of the effect sizes are moderate or large (Cohen, 1988), indicating that the differences are of relevant magnitude.

On the other hand, 53.6% of participants with scores above the cut-off point had used hashish or marijuana ($\chi^2 = 50.71$; $p < .001$; $\Phi = 0.30$) and 73.7% had used other

types of drug ($\chi^2 = 19.74$; $p < .001$; $\Phi = 0.19$). Those youngsters who scored above the cut-off point on the RAPI scored higher on all the scales of the BSI ($p < .001$). The t tests carried out for the three summary scales yielded the following results: *Global Severity Index* ($p < .001$; $t = -6.69$; $d = 0.64$); *Total Positive Symptoms* ($p < .001$, $t = -7.69$ and $d = 0.70$) and *Positive Symptom Distress Index* ($p < 0.001$, $t = -4.98$ and $d = 0.43$).

Discussion

The goal of this study was to adapt the RAPI, an instrument for assessing the consequences associated with alcohol use in young people, to Spanish population and analyze its psychometric properties. The availability of an instrument with these characteristics is of crucial importance to early detection and intervention during adolescence. The results show that the RAPI is a valid and reliable questionnaire for detecting problems related to the use of alcohol in young Spaniards.

The RAPI presents a one-dimensional factor structure with a factor weight of over .30 in all items. These results are consistent with those found by the authors of the instrument (White and Labouvie, 1989). According to them, the structure of the RAPI guarantees brevity and simplicity in both its application and its scoring. However, Martens, Neighbors, Dams-O'Connor, Lee, and Laimer (2007) found three factors (*Symptoms of abuse/dependence*, *Personal consequences* and *Social consequences*), though this discrepancy may be explained by the different types of sample employed. Further research is needed to determine whether the RAPI is consistent with a one-dimensional model or whether, following the direction of other authors, it is preferable to consider the presence of more factors.

The reliability of the RAPI in Spanish population is quite high (.87), and similar to that found in previous studies (White and Labouvie, 1989). Other authors (Ginzler, Garrett, Baer, and Peterson, 2007) analyzed the reliability of the instrument by different groups of participants, finding scores of .94, .93 and .93, respectively. Likewise, the reliability for the Spanish version of the RAPI in the USA (Orona *et al.*, 2007) shows a Cronbach's alpha of .88. The differences observed do not seem to be of great relevance, and the instrument shows high internal consistency. Despite the fact that all the items on the scale yielded discrimination indices higher than .30, it should be taken into account that two items (10 and 7) obtained scores below this value. It would be very interesting to analyze the possibility of generating a briefer version in Spanish, with reliability comparable to or higher than that found in the present study. Indeed, there are already studies in which this correction has been made. White and Labouvie (2000) have proposed a short version of the RAPI made up of 18 items with a correlation of .99 with respect to the original version. Other authors have also reduced the length of the RAPI, to 18 items, for example, with a view to increasing its utility for clinical practice (Neal, Corbin, and Fromme, 2006).

The results in predictive validity with the DSM-IV-TR abuse and dependence criteria show that the RAPI is a valid instrument for detecting adolescents with problems of alcohol abuse and dependence. With a sensitivity of 81.9% and 73.1% and a specificity

of 71.3% and 72.2%, for dependence and abuse, respectively, the cut-off point set at 7 points has proved useful for discriminating between young people with non-problematic alcohol use and those whose drinking is beginning to cause them serious problems in various areas of their lives. Moreover, exceeding the cut-off point indicates greater presence of psychopathological distress, as indicated by various BSI scales.

Significant differences were found in all the scales, including the summary scales: *Total Positive Symptoms Index*, *Global Severity Index* and *Positive Symptom Distress Index*. It is important to point out that higher scores indicate not the presence of an established psychopathological disorder, but rather higher levels of psychopathological distress, associated with the use of alcohol and the problems derived from it. This result is consistent with findings which show that young people with problems of substance (including alcohol) abuse or dependence present psychosocial functioning difficulties and quantities of psychopathological symptoms similar to those of people attending mental health services (Christie, Merry, and Robinson, 2010).

A score of over 7 also appears to be related to higher likelihood of using hashish or marijuana, since more than half of the youngsters with scores higher than 7 on the RAPI had taken this drug. Likewise, 73.7% of the participants who scored above this threshold had used substances other than alcohol. The association between drinking and use of illegal drugs has been shown in numerous studies (Best *et al.*, 2000; Degenhardt *et al.*, 2010). The RAPI appears, in this sense, quite sensitive for the detection of problematic and dysfunctional patterns of use in which alcohol is not the only substance involved.

The main advantages of the RAPI reside in its brevity and ease of application, allowing the rapid and accurate assessment of the negative consequences of the excessive consumption of alcohol in adolescents (both clinical and non-clinical samples). The data provided by the RAPI are extremely valuable, since previous research have shown that scores on the questionnaire when it is applied in late adolescence are robust predictors of the diagnosis of alcohol-related disorders in early adulthood (Dick, Aliev, Viken, Kaprio, and Rose, 2011). Another advantage of the RAPI is that it can form part of a clinical interview in which the professional uses the data it provides for discussing the negative consequences of drinking. In view of all of these factors, this scale facilitates the establishment of early-detection mechanisms so that young people with such problems can be referred to selective or indicated intervention programs, depending on the harm they have incurred in different areas of their lives (criminal behavior, family life, neuropsychological functioning, physical problems, psychological functioning and social relations).

The study has certain limitations. The lack of standardized instruments in Spain for assessing abusive and problematic alcohol use in adolescents precluded our carrying out convergent validity analyses in which we could compare the RAPI results with those obtained from other instruments. Also, the sample selection method does not ensure that it is representative of the entire school population in this age range. Nevertheless, the similarity of our results and the national data provided by the Plan Nacional sobre Drogas (2009) survey with regard to alcohol use in youngsters aged 16 to 18 lends support for the generalization of the conclusions drawn. Lifetime prevalence

of alcohol use was 92%, which is very close to the 89.7% found in the ESTUDES survey by the Plan Nacional sobre Drogas (2009). Likewise, alcohol-use prevalence over the last 12 months and 30 days was 89.5% and 77.7%, respectively, figures which are close to those obtained by that survey for the same periods (82% and 70.3%, respectively).

As it can be seen, the differences found between the two research sources are very small, though a slightly higher percentage of users can be appreciated in the results obtained by the present study. However, the nationwide studies for young people aged 14-18 also indicate higher rates of use in the region in which we carried out our study with respect to the national average (Plan Nacional sobre Drogas, 2009).

It should also be stressed that the present work did not analyze possible differences in the functioning of the items according to sex, bearing in mind that previous studies have shown unequal functioning of RAPI items between boys and girls, suggesting that sexual roles may contribute to different indices of alcohol-related problems (Earleywine, LaBrie and Perdersen, 2008).

Despite these limitations, the results of this study show that the RAPI is as a reliable and valid screening instrument for detecting young people with problems related to alcohol use. A cut-off point of 7 has proved useful for detecting adolescents at risk who meet the DSM-IV-TR criteria for abuse and dependence. Further research is needed with the aim of confirming the instrument's factor structure, and of determining whether it really is a one-dimensional scale or whether, on the other hand, the structure of the definitive version of the RAPI in Spain should be bi- or tri-dimensional; it should also be taken into account that the items may function differentially according to participants' sex. Finally, it might be useful to consider a shortening of the instrument, so as to further facilitate its application, but without affecting its validity and reliability.

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APPENDIX 1. RAPI. Cuestionario Rutgers de Problemas con el Alcohol.

Hay ciertas cosas que le suceden a la gente cuando está bebiendo alcohol o como consecuencia de haber bebido alcohol. A continuación se mencionan algunos de estos problemas. Indica por favor cuántas veces te ha sucedido cada una de estas cuestiones DURANTE EL AÑO PASADO.

Utiliza para ello la siguiente escala:

- 0 = Nunca
- 1 = 1 ó 2 veces
- 2 = Entre 3 y 5 ocasiones
- 3 = En más de 5 ocasiones.

¿En cuántas ocasiones te han sucedido las siguientes cosas durante el año pasado mientras estabas bebiendo o como consecuencia de haber bebido?

1. No ser capaz de hacer los deberes o estudiar para un examen.	0	1	2	3
2. Meterte en peleas con otra gente (amigos, familiares, extraños, ...).	0	1	2	3
3. No poder hacer ciertas cosas porque te has gastado demasiado dinero en alcohol.	0	1	2	3
4. Ir a la escuela o al trabajo "contento" o borracho.	0	1	2	3
5. Avergonzarse a alguien.	0	1	2	3
6. No cumplir con tus responsabilidades.	0	1	2	3
7. Que tus familiares te eviten.	0	1	2	3
8. Sentir que necesitas más alcohol del que normalmente consumías para lograr los mismos efectos.	0	1	2	3
9. Intentar controlar tu consumo de alcohol (beber sólo en ciertos momentos del día o en ciertos sitios, cambiar tus manera de consumir, ...).	0	1	2	3
10. Tener síntomas de abstinencia (es decir, ponerte malo porque has parado o reducido el consumo de alcohol).	0	1	2	3
11. Haber notado un cambio en tu personalidad.	0	1	2	3
12. Sentir que tienes un problema con el alcohol.	0	1	2	3
13. Haber perdido un día o parte de un día de colegio o de trabajo.	0	1	2	3
14. Querer parar de beber, pero no poder.	0	1	2	3
15. Encontrarte de repente en un lugar al que no recuerdas haber llegado.	0	1	2	3
16. Desmayarte o perder el conocimiento.	0	1	2	3
17. Tener una pelea, discusión o "mal rollo" con un amigo.	0	1	2	3
18. Tener una pelea, discusión o "mal rollo" con un familiar.	0	1	2	3
19. Seguir bebiendo cuando te prometiste no hacerlo.	0	1	2	3
20. Sentir que te estás volviendo loco.	0	1	2	3
21. Pasar un mal rato.	0	1	2	3
22. Sentirte física o psicológicamente dependiente del alcohol.	0	1	2	3
23. Que un amigo, vecino o familiar te haya dicho que dejes de beber o que bebas menos.	0	1	2	3