

Psychometric properties of Gaudiebility Scale (Modulators of Enjoyment) for Children and Adolescents (GSCA)

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Título: Propiedades psicométricas de la Escala de Gaudiebilidad (Moduladores de Disfrute) para Niños y Adolescentes (EGNA).

Resumen: La disminución de la capacidad de disfrute puede considerarse un factor de riesgo de trastornos mentales. Por ello, es de utilidad disponer de instrumentos válidos para evaluar la gaudiebilidad en niños y adolescentes. El objetivo del presente trabajo fue construir y analizar las propiedades psicométricas de la Escala de Gaudiebilidad para Niños y Adolescentes (EGNA). 1.264 estudiantes de primaria, secundaria y bachillerato respondieron a: EGNA, Escala de Autoestima de Rosenberg, Escalas Panas de afecto positivo y negativo para niños y adolescentes y la escala de Depresión del Centro de Estudios Epidemiológicos. Mediante un análisis factorial confirmatorio utilizando Weighted Least Square con una reparametrización con un valor de $\delta = .05$ y forzando una estructura entre factores no ortogonal con el modelo de 5 factores (Disfrute en compañía, Autoeficacia frente al aburrimiento, Sentido del humor, Imaginación e interés) relacionados, los resultados ($\chi^2/df = 9.40$; CFI = .931; TLI = .946) indican que los índices de modificación no presentaron valores relevantes, de forma que no sería pertinente proponer ningún otro modelo alternativo. Además, se observó una consistencia interna adecuada (Cronbach $\alpha = .794$) en la escala total y en los 5 factores. Finalmente se observaron adecuadas evidencias de validez. Se concluye que la EGNA es adecuada para cuantificar los niveles de gaudiebilidad en niños y adolescentes.

Palabras clave: Afecto positivo. Disfrute. Análisis Factorial Confirmatorio. Validación. Moduladores.

Abstract: The decrease in the ability to enjoy can be considered a risk factor or marker of mental disorders. Therefore, it can be useful to have a scale to quantify gaudiebility in children and adolescents. The objective of the present work was to build and analyze the psychometric properties of the Gaudiebility Scale for Children and Adolescents (GSCA). 1,264 primary, secondary and high school students responded to GSCA, Rosenberg's self-esteem scale, Positive and Negative Affect schedule, Center of Epidemiological Studies of Depression scale. Through a confirmatory factor analysis using WLSMV (Weighted Least Square) estimation with a reparameterization with a value of $\delta = .05$ and forcing a non-orthogonal factor structure was observed to 5 factors model (Enjoyment in Company, Self-efficacy versus boredom, Sense of humor, Imagination and Interest) related, results ($\chi^2/df = 9.40$; CFI = .931; TLI = .946) indicate that the modification indices did not present relevant values, so it would not be pertinent to propose any other alternative model. In addition, an appropriate internal reliability (Cronbach $\alpha = .794$) was observed in the total scale and in the 5 subscales. Finally, an adequate evidence of validity was observed. It is concluded that GSCA seems appropriate to quantify gaudiebility levels in children and adolescents.

Keywords: Positive Affect. Enjoy. Confirmatory Factor Analysis. Validity. Modulators.

Introduction

The World Health Organization in 1948 defined health as a complete state, which includes the presence of physical, psychological and social wellbeing and since then it is no longer conceived as the mere absence of disease or disability. Subsequently, positive (or salutogenic) aspects have been emphasized, without forgetting the relevance of the absence of pathogenic factors to refer to health (Antaramian, Huebner, Hills & Valois, 2010). Therefore, the presence of enjoyment and the resources to enjoy in the human being can be considered as a mental health factor.

From the traditional perspective of the psychopathogenic, Ribot (1897) at the end of the XIX century defined the symptom of anhedonia as the inability to experience pleasure or enjoyment in daily life. Subsequently, anhedonia has been considered as a dimensional construct and terms such as hipohedonia (Kayton & Soon, 1975; Meehl, 2001) or dishedonia (Manna, 2006) have been also coined. Anhedonia has also been conceived as a transdiagnostic phenomenon

with an underlying neurological substrate, shown in psychotic disorders (Krynicky et al., 2018), depressive disorders (Krynicky, et al., 2018; Pizzagalli, 2014; Pizzagalli et al., 2008; Rizvi, et al., 2016) related to trauma (Nawijn et al., 2015; Spitzer et al., 2017; Risbrough et al., 2018; Vujanovic et al., 2017) and substance use (Manna, 2006; Vujanovic et al., 2017). Additionally, it has been associated with other conditions abnormalities, such as risk of suicide (Pizzagalli et al., 2008; Rizvi et al., 2016; Spitzer et al., 2017) and reduction of global functioning (Pizzagalli et al., 2008; Rizvi et al., 2016; Cao, et al., 2016).

It has been reported that physical and verbal abuse and neglect are related to low level of enjoyment especially in children and adolescents (Ney, Fung & Wickett, 1994). Anhedonia has also been observed in surviving children of traumatic events (Atlas & Hiott, 1994; Lumley & Harkness, 2007; Thabet & Vostanis, 2000), (see review in Pechtel, & Pizzagalli, (2010)) and in children and adolescents with affective disorders, particularly in severe depression (Gabbay et al., 2015). Anhedonia has been associated with suicidal ideation and attempt, regardless of the depressive symptomatology in students (Winer, Drapeau, Veilleux, & Nadorff, 2016). In summary, the inability or decreased ability to enjoy can be considered a risk factor or marker of several disorders.

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Enjoyment can be defined as a positive affective state that includes states such as pleasure and fun (Scanlan & Simons, 1992). A distinction can be made between basic pleasure and complex or evolved enjoyment. Nonetheless Kringelbach & Berridge (2009) point out that the neuroanatomical bases of basic or fundamental pleasure and complex or superior pleasure overlap. Therefore, complex enjoyment can be considered as an evolved mechanism of basic pleasure. The set of modulators regulating complex enjoyment is defined as gaudiebility (Padrós-Blázquez & Fernández-Castro, 2008). People showing high levels of gaudiebility would enjoy more frequently, more intense, longer and after a several types of circumstances.

Gaudiebility is multifactorial including three components: 1) skills such as imagination, sense of humor, ability to be interested; 2) beliefs or cognitive styles such as irrational beliefs (e.g. the one who laughs a lot is not competent or not very sensitive); 3) lifestyle, such as tendency to active or passive leisure (Padrós-Blázquez & Fernández-Castro, 2008).

Previous studies have found low levels of gaudiebility in disorders such as schizophrenia (Padrós-Blázquez, et al., 2011) and substance dependence disorders (Padrós-Blázquez et al., 2011). Gaudiebility can be modified through interventions. For example, a previous study indicates that gaudiebility was successfully improved after an ad hoc intervention in patients with major depression. (Padrós Blázquez, et al., 2014).

Our current research has the assumption that decreased gaudiebility can be a risk factor for the onset of disorders or other abnormal conditions. Also, it can be a marker of a pathological or anomalous condition. Therefore, a scale aimed to evaluate gaudiebility will be useful in a clinical setting. Currently, there is a scale to evaluate gaudiebility in adults (Padrós-Blázquez & Fernández-Castro, 2008; Padrós-Blázquez, et al., 2012). However, there is no scale to assess gaudiebility in the children and adolescents. Therefore, the objective of the current research was to develop a scale to assess gaudiebility in children and adolescents.

The specific objectives were 1) To study the internal structure, it is expected to corroborate the internal structure found in the exploratory factor analysis in the first phases of the study through the use of a confirmatory factor analysis with the final version in the last phase. 2) To study the reliability of the scale and factor data, it is expected to find values above .70. 3) To study evidence of validity; Evidence of validity would be appropriate if there is a positive correlation between gaudiebility and positive affect, because gaudiebility is included in positive affect. A positive correlation is also expected with self-esteem, because people with high gaudiebility tend to enjoy more, which could have a positive effect on self-assessment. In addition, gaudiebility would show negative correlations with negative affect and with depressive symptomatology, because enjoyment can function as a buffer mechanism against negative affect and the inability to experience enjoyment is one characteristic of depression. 4) To describe the normative data of the scale,

and the possible differences by sex and the relationship between gaudiebility and age were studied.

Method

Participants

In the second phase, 54 items version was applied to 621 participants of primary, secondary and high-school in ages between 11 and 18 years.

In the third phase the sample included 1,264 students of primary, secondary and high-school in ages between 11 and 18 years (mean, $M = 14.93$; standard deviation, $SD = 1.82$) of which 582 (46.0%) were female, from the city of Morelia (México). Six schools were selected from different areas of the city (4 public and 2 private), consequently the selection was non-random and for convenience. No exclusion criteria were used. Twenty-six cases were eliminated for failing to respond to one or more of the items.

Instruments

Gaudiebility Scale (Modulators of Enjoyment) for Children and Adolescents (GSCA). The data of the final version of 15 items was applied. Items are rated with three options (Totally agree, Neither agreement, nor disagree and No agreement) with values from 2 to 0. The total score of the scale is obtained by directly adding the items with a range between 0 to 30. See scale in appendix 1.

Rosenberg's Self-esteem Scale (Rosenberg, 1973) of 10 items with four response options (Strongly agree, Agree, Disagree and Strongly disagree) used the Mexican version (González-Forteza & Ramos-Lira, 2000). High scores indicate high self-esteem. The scale has shown an internal reliability with a Cronbach's α of .61 for males and .72 for females.

The Positive and Negative Affect Schedule (PANASN) for children and adolescents of Sandín (Sandín, 2003). There are two self-report scales of 20 items, 10 items evaluate positive affect and 10 evaluate negative affect. The child or adolescent evaluated responds to the frequency (Never, Sometimes or Many times) that experiences different affective states. The PANASN has shown an internal reliability with a Cronbach's α between .72 and .75.

The Depression scale of the Center for Epidemiological Studies (CES-D) of Radloff (1977) adapted for Mexican population (Jiménez-Tapia, Wagner, Rivera-Heredia & González-Forteza, 2015) measures depressive symptomatology and consists of 20 items. The scale has shown an internal reliability with a Cronbach's α of .93 in adolescents. The properties shown by the scale in Mexican adolescent students have been acceptable.

Procedure

The research protocol was evaluated and approved by the Ethics Committee of our university. Consent was obtained by sending a letter, including the informed consent form, to parents or participant's substitute decision-maker. Also, participants had the choice to participate without any further consequence.

The validation of the instrument was carried out in four phases: In the first, 67 items were written by two authors of the present study generating them in an original way, taking as a reference the construct and each one of its theoretical components to evaluate the gaudiebility. The possible factors considered were the following: "Imagination", "Interest", "Sense of humor", "Self-efficacy versus boredom", "Irrational beliefs", "enjoy in solitude" and "Enjoy in Company", considered as well-known candidates to be part of gaudiebility (Padrós, 2002). Subsequently, three judges evaluated the relevance and concordance of each of the items with the operational definition of the concept (and the component), to obtain content validity. Taking into account the following characteristics: representativeness, relevance, diversity, clarity, simplicity and comprehensibility (Muñiz & Fonseca-Pedrero 2019). From this analysis, 54 items with satisfactory content validity were obtained to integrate the scale.

Data from sample groups were gathered through anonymous and voluntary participation, after obtaining permission from schools directors.

In the second phase, the 54 items preliminary version of the GSCA was applied to 621 participants to analyze the psychometric characteristics. In this first analysis, 39 items were eliminated (due to the lack of contribution to any factor, contributed to more than one factor or the Cronbach's α increased after its elimination), leaving 15 items.

In the last stage, the GSCA version of 15 items was applied together with the following instruments: the Rosenberg Self-esteem Scale, the PANAS scales and the CES-D with an approximate duration of 30 minutes. In all the stages, the school's directors allowed to apply the instruments in a group manner, same instructions were given, which a standardized way by the same evaluators. This last phase is the one reported in the results.

Statistical Approach

First, an item analysis was performed, using the Pearson correlation of each item with the total score of the corrected scale (without counting the item itself), and after calculating the Cronbach's alpha if the item was eliminated. A minimum correlation of .30 was established as a criterion for the goodness of the items and no increase in the value of alpha was observed if the item was eliminated (Costello & Osborne, 2005). Subsequently, the study of the internal reliability was carried out using the Cronbach's alpha, ordinal alpha and attenuation index (Domínguez-Lara, 2018) of the

total scale and that of each factor, taking as reference Campo-Arias and Oviedo (2008). where values equal or above .70 are acceptable.

For the study of the internal structure, an exploratory factor analysis (EFA) was performed first (second and third phase). EFA with Minimum Rank Factor Analysis as the extraction method and oblimin rotation was carried out to explore the factorial structure of the GSCA. The polychoric correlation matrix was used in the EFA. The method for factor extraction was Minimum Rank Factor Analysis; polychoric correlation matrix was used. The recommendations of Lloret-Segura et al., (2014) were taken as a reference and data on the EFA carried out by extraction of factorization of main axes are offered, considering the Bartlett sphericity test and the Kaiser, Meyer and Olkin (KMO) test to assess the applicability of the factor analysis, as well as the extraction of eigenvalues, considering values higher than unity.

Subsequently, the CFA was analyzed in the last phase, (15 items of final version and 1,264 participants), Through a confirmatory factor analysis using WLSMV (Weighted Least Square) estimation with a reparameterization with a value of $\delta = .05$ and forcing a non-orthogonal factor structure was applied to 5 factors model (Enjoyment in Company, Self-efficacy versus boredom, Sense of humor, Imagination and Interest) related. Acceptable model fit is defined according to the following criteria: CFI > .90, TLI > .90 and $\chi^2/p > .05$, but a good fit of the model is attained when CFI > .95, TLI > .95 and $\chi^2/p > .05$ (Bentler, 1999; Hu & Bentler, 1999).

The evidence of validity of the GSCA was assessed through Spearman correlations with the other variables. In the case of significant findings, we computed Cohen's d to provide an estimate of the effect size of the difference.

The analyzes were carried out with the 22.0 program (IBM Corp Released, 2013), except for the CFA, which used the MPlus Versión 7.0 program (Muthén & Muthén, 2011).

Results

Internal structure

First an exploratory factor analysis (in the second phase, 54 items version and 621 participants) was carried out, where it was observed that the Bartlett sphericity test was significant ($\chi^2 = 4835.96$ $df = 105$, $p < .001$) and the KMO test = .794, which indicates the applicability of the factor analysis to the data. On the other hand, we observed 5 factors obtained eigenvalues higher than the unit that explained 63.23% of the variance.

In the last phase (15 items of final version and 1,264 participants), through a confirmatory factor analysis using WLSMV (Weighted Least Square) estimation with a reparameterization with a value of $\delta = .05$ and forcing a non-orthogonal factor structure was applied to 5 factors model (Enjoyment in Company, Self-efficacy versus boredom,

Sense of humor, Imagination and Interest) related, the following model fit values were observed; $\chi^2 = 658.195$, $df = 70$; $p < .001$ indicates absence of adjustment; $\chi^2/df = 9.40$ this index is somewhat higher than desired; CFI = .931; TLI

= .946 suitable values, these results indicate that the modification indices did not present relevant values, so it would not be pertinent to propose any other alternative model. See model in Figure 1.

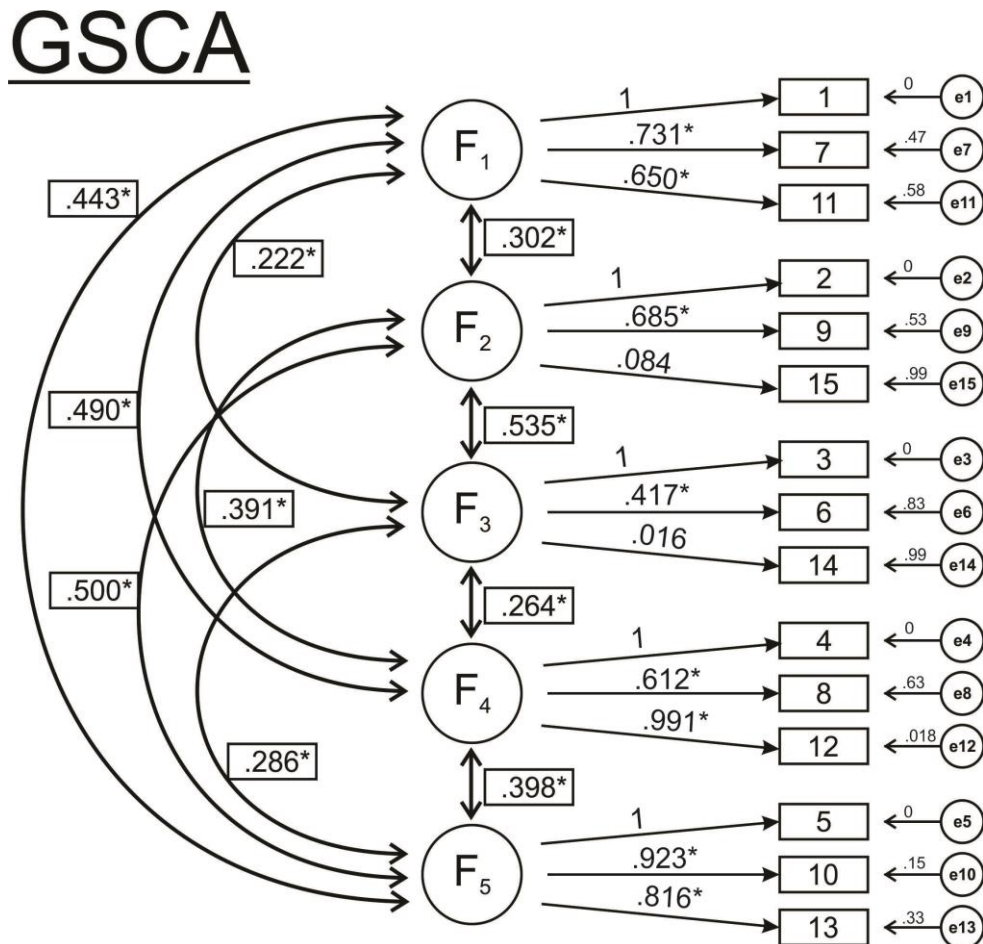


Figure 1. Estimation of the parameters of the proposed CFA model of 5 related factors. The factors (F1 to F5) are connected with unidirectional arrows with the items included in each factor showing the factorial load. Covariance values between factors are indicated by bidirectional arrows. Arrows on the left with an 'e' indicate the measure error. F1: Enjoy in Company, F2: Self-efficacy versus boredom, F3: Sense of humor, F4: Imagination and F5: Interest. The parameters λ_{11} , λ_{22} , λ_{33} , λ_{44} and λ_{55} were set to 1 to determine standardized estimates and variances. * $p < .001$.

Reliability

To assess internal reliability, Cronbach's alpha, ordinal alpha and attenuation index was used. It was observed that four of the factors showed adequate values and the one of "Interest" was acceptable: "Enjoy in Company" ($\alpha_O = .733$, $\alpha_C = .727$ & AI of 1%), "Self-efficacy versus boredom" ($\alpha_O = .705$, $\alpha_C = .705$ & AI of 0%), "Sense of humor" ($\alpha_O = .748$, $\alpha_C = .741$ & AI of 1%), "Imagination" ($\alpha_O = .749$, $\alpha_C = .743$ & AI of 1%), and "Interest" ($\alpha_O = .519$, $\alpha_C = .518$ & AI of 1%). The internal reliability of the total scale was also adequate ($\alpha_O = .920$, $\alpha_C = .794$ & AI of 14%). The mean of the items ranged between the values of 1.13 (item 2) and

1.81 (item 1). The values of the standard deviation were distributed between 0.42 and 0.70. The correlation of each item with the corrected total score without taking into account the item itself, were all greater than .30. In addition, it was observed that no item being eliminated increases the Cronbach's alpha value of the total scale (see Table 1). Four items (3, 6, 7 and 14) show skewness (-1.53, -1.75, -1.58 and -2.00) or kurtosis (1.34, 2.10, 1.58 and 0.14) values that are above the ± 1 range; therefore it is inferred that they do not fit a normal distribution. Regarding the discrimination indices, all the items discriminate satisfactorily, obtaining moderate and high effect size indices (see Table 1).

Table 1. Mean, standard deviation, *d* of Cohen and effect size (*r*) discrimination indices extracted from the comparison of means, correlation of the item with the total scale (corrected) and the value of Cronbach's alpha if the item is removed from the GSCA items.

Items	Mean	Standard deviation	<i>d</i> (Cohen)	Effect size (<i>r</i>)	Correlation Item total scale (corrected)	Alpha of the scale if item is deleted
1	1.81	.42	-0.97	-.44	.413	.783
2	1.13	.67	-1.33	-.55	.348	.787
3	1.67	.57	-0.98	-.44	.380	.784
4	1.51	.62	-1.48	-.60	.436	.779
5	1.57	.53	-1.30	-.55	.383	.784
6	1.74	.50	-1.08	-.48	.460	.779
7	1.70	.53	-1.10	-.48	.431	.780
8	1.48	.61	-1.30	-.54	.413	.781
9	1.25	.70	-1.69	-.65	.430	.780
10	1.57	.57	-0.95	-.43	.314	.789
11	1.60	.58	-1.15	-.50	.394	.789
12	1.56	.61	-1.17	-.50	.418	.781
13	1.44	.57	-1.13	-.49	.358	.785
14	1.78	.47	-1.08	-.48	.473	.778
15	1.42	.67	-1.66	-.64	.423	.781

Evidence of Validity

The evidence on concurrent and discriminant validity was evaluated using the Spearman correlations between the GSCA scale and the other measurements. The highest correlation was obtained and it was positive with positive affect. It was also positive but moderate-low with the Self-esteem and was low and negative with negative affect and with the CES-D scale of depression, all significant (see Table 2).

Table 2. Spearman correlations between the GSCA with each of the scales applied.

Escala	CES-D	SE	NA	PA
EGNA	-.179**	.298**	-.137**	.534**
CES-D		-.498**	.420**	-.308**
SE			-.296**	.432**
NA				-.074

ESCA (Enjoyability Scale for Children and Adolescents), CES-D (Depression Scale), SE (Scale of Self-esteem of Rosenberg), NA (Scale of Negative Affect of scale PANASC) y PA (Scale of Positive Affect of scale PANASC).

Note 2. * $p < .01$, ** $p < .001$

Normative data

The mean was 23.21, the $SD = 4.40$, the median was 24 and the minimum value of 4 and the maximum of 30, see the frequencies and percentages in Table 3. The average of the female participants ($M = 23.60$, $SD = 4.33$) was higher ($t_{1262} = -2.944$, $p = .003$; $d = .16$; $r = .08$) than that shown by the male participants ($M = 22.88$, $SD = 4.44$). On the other hand, there was no relationship between gaudibility and age ($r = -.052$, $p = .068$). Table 4 shows the percentiles of the scores.

Table 3. Frequencies and percentages (simple and accumulated) of values of GSCA.

Values	Frequency	%	Accumulated frequency	Accumulated percentage
4.00	2	0.2	2	0.2
6.00	2	0.2	4	0.3
8.00	7	0.6	11	0.9
9.00	10	0.8	21	1.7
11.00	7	0.6	28	2.2
12.00	7	0.6	35	2.8
13.00	8	0.6	43	3.4
14.00	11	0.9	54	4.3
15.00	24	1.9	78	6.2
16.00	12	0.9	90	7.1
17.00	29	2.3	119	9.4
18.00	32	2.5	151	11.9
19.00	50	4.0	201	15.9
20.00	81	6.4	282	22.3
21.00	93	7.4	375	29.7
22.00	105	8.3	480	38.0
23.00	126	10.0	606	47.9
24.00	127	10.0	733	58.0
25.00	119	9.4	852	67.4
26.00	116	9.2	968	76.6
27.00	100	7.9	1,068	84.5
28.00	80	6.3	1,148	90.8
29.00	57	4.5	1,205	95.3
30.00	59	4.7	1,264	100.0

Table 4. Description of GSCA scores by percentiles.

Percentile	Scores
1	9
5	15
10	18
15	19
20	20
25	21
30	22
35	22
40	23
45	23
50	24
55	24

Percentile	Scores
60	25
65	25
70	26
75	26
80	27
85	28
90	28
95	29
99	30

Discussion

The aim of the present work was to develop and analyze some of the psychometric properties (internal structure, internal reliability and evidence of validity) of a scale to evaluate gaudiebility in children and adolescents. Regarding the internal structure, the theoretical model of 5 related factors showed a doubtful fit. It should be remembered that gaudiebility is defined as the set of modulators that regulate the enjoyment experienced (Padrós-Blázquez & Fernández-Castro, 2008), therefore, it was expected that the scale was multifactorial and not unifactorial (Padrós-Blázquez & Fernández-Castro, 2008; Padrós-Blázquez, et al., 2012).

Items 14 and 15 did not show adequate relationships with their own factor in the model, although they did with the full scale. On the other hand, all the items showed to contribute in the alpha of each one of their factors and of the total scale. The reliability of the total scale and of each of the factors extracted was adequate, considering that it is composed by 5 factors of three items each.

The correlations found with the other scales were consistent and expected, taking into account that the highest (and positive) numerical correlation was with positive affect, which was expected because enjoyment is part of it (Diener, 2000). However, remember that the gaudiebility is not equivalent to enjoyment, but the modulators of it. On the other hand, the low and positive correlation with self-esteem was also expected, because probably people who manifest a high gaudiebility tend to enjoy more and this can have a moderate impact on the valuation of oneself. Finally, the low and negative correlation with the negative affect is also

consistent with the theoretical model of subjective well-being (Diener, 2000) as well as with the presence of depressive symptomatology, taking into consideration that anhedonia is a fundamental symptom of depression (Krynicky et al., 2018; Pizzagalli, 2014; Pizzagalli et al., 2008; Rizvi et al., 2016; Gabbay et al., 2015; APA, 2013).

It can be concluded that the Scale of Gaudiebility Scale for Children and Adolescents obtained adequate indicators regarding its evidence of validity and reliability. The GSCA can be useful as a screening tool to detect children and adolescents with a variety of pathologies and problematic circumstances (Atlas & Hiott, 1994; Lumley & Harkness, 2007; Thabet & Vostanis, 2000; Pechtel, & Pizzagalli, 2010; Gabbay et al., 2015; Winer et al., 2016). Likewise, those children and adolescents who show low levels of gaudiebility could benefit in the future from adjuvant treatments such as those applied with some effectiveness to adult depressive patients (Padrós Blázquez, et al., 2014).

However, it would be convenient in future investigations to carry out in-depth assessments with children and adolescents with low gaudiebility values with the intention of corroborating the possible pathology or anomalous circumstances that may be suffering. It would also be pertinent to extend studies of evidence of concurrent validity with the use of instruments that evaluate experienced enjoyment, psychological well-being and emotional intelligence.

It should be noted that in the selection of the sample some variables such as IQ, attention deficits, socioeconomic level, among others that may influence the results, were not controlled. Especially worthy of attention is the social desirability that can bias the answers, in future research these variables should be controlled. On the other hand, it would also be desirable to study the test-retest reliability of the scale.

Regarding the generalization to the Mexican population of the values obtained, it should be noted that the samples have only been obtained from some schools in Morelia (a state of Michoacán). Samples should be taken from other regions and outside a school.

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Appendix 1

EGNA (GSCA)

Instrucciones: Esta escala está diseñada para conocer tu disposición a experimentar disfrute. Por favor, contesta marcando una cruz (x) a cada cuestión. Tú respuesta ha de indicar el grado de acuerdo respecto a cada afirmación, no lo que crees que debería ser o lo que desearías. Por ello contesta con rapidez y no analices demasiado tus respuestas, ya que la primera suele ser la más acertada. Intenta responder a todas las cuestiones y no dejarte ninguna.

Señala el nivel de acuerdo en cada una de las siguientes afirmaciones:

	Totalmente de acuerdo	Ni en acuerdo ni en desacuerdo	Nada de acuerdo
1. Disfruto mucho cuando estoy con algunos de mis compañeros.			
2. Creo que puedo disfrutar incluso cuando estoy con gente aburrida.			
3. Fácilmente me río.			
4. Soy una persona muy imaginativa.			
5. Me intereso fácilmente en la mayoría de las cosas que hago.			
6. A lo largo del día hay muchas cosas que me hacen reír			
7. Casi siempre que estoy con los compañeros de la escuela me divierto.			
8. Tengo mucha imaginación.			
9. Creo que puedo pasármelo bien incluso cuando estoy en un lugar aparentemente aburrido.			
10. Algunas veces me intereso por algo con mucha intensidad.			
11. Me la paso bien con la mayoría de compañeros.			
12. Si me lo propongo me imagino historias con facilidad.			
13. Me intereso frecuentemente por varios temas.			
14. Acostumbro a reír varias veces al día.			
15. Si me lo propongo soy capaz de disfrutar de una situación aparentemente aburrida.			