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Psychometric properties of the Spanish version of the questionnaire assessing reasons for school non-attendance

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Abstract

The study aimed to translate, culturally adapt and validate the Spanish version of the *Assessing Reasons for School Non-attendance* (ARSNA) originally developed by Havik, Bru and Ertesvåg in 2015 to assess the reasons for school absence in adolescents. We used the back-translation method to translate and adapt the instrument without substantially altering it. A total of 1168 Spanish adolescents (M = 15.03, SD = 2.40) enrolled in 6 secondary education institutes participated in the study. The confirmatory factor analysis establishes a four-dimensional model (FI: Somatic symptoms; FII: Subjective health complaints; FIII: Unjustified absences; FIV: School refusal) with 16 items and invariant depending on gender. The results obtained provide the Spanish version of the ARSNA with good understandability, internal consistency, and reliability for measuring the causes of lack of school attendance. This research makes a new instrument available to the Spanish population that evaluates reasons for school absenteeism.

Keywords: Causes of absenteeism, Factorial invariance, School non-attendance, Validation, ARSNA, Questionnaire.

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Contents

Contribution of this paper to the literature

This article presents the Spanish version of the only questionnaire that is oriented to the evaluation of the school absenteeism causes and addresses two factors "somatic symptoms" and "subjective health complaints" highlighted as the most prevalent causes of absenteeism. It fills a gap found in the scientific literature on this field.

1. Introduction

School attendance is influenced by numerous aspects such as the student's socioeconomic background (Klein, Sosu, & Dare, 2020; Sosu, Dare, Goodfellow, & Klein, 2021), perceived parental control (Filippello, Buzzai, Messina, Mafodda, & Sorrenti, 2020) or the student's health (Allison et al., 2019). Similarly, absenteeism, whether acceptable caused by illness, or resulting from school exclusion is predicted to affect children's academic achievement (Ancheta, Daniel, & Ahmad, 2021; Keppens, 2023).

Extensive research has been carried out on strategies to promote school attendance which indicated that psychosocial treatment produces improvements in the school attendance of young people displaying school refusal (Maynard et al., 2018). At the same time, it has been shown that students' commitment to school is a key element in promoting low absenteeism rates (Demir & Akman Karabeyoglu, 2015; Teuscher & Makarova, 2018; Watson, Prosek, & Giordano, 2022). Moreover, improving the school climate also leads to a reduction in school absenteeism (Daily et al., 2020; Spring & Ochoa, 2024).

2. Literature Review

The evaluation will be critical in providing proper direction to preventative activities and giving significance to these interventions if such absenteeism behavior occurs in addition to understanding the causes of school absenteeism. The detection of common patterns will also enable personalized approaches in the students themselves (Martín et al., 2021; Nwosu et al., 2022) .

Despite the growing research interest in the subject and the boom experienced in recent years (Gonzálvez, Kearney, Vicent, & Sanmartín, 2021) few specific instruments have been developed for the assessment of school attendance problems (Elliott & Place, 2019). Kearney and Albano (2018) state that among the methods used by research teams for the assessment of school attendance problems, interviews, behavioral observations, and questionnaires prevail. Some of these instruments focus on assessing the reasons for non-attendance while others focus their work on addressing the functionality of absenteeism (Hou, Harada, Ota, & Kato, 2023). Unfortunately, the assessment of school attendance problems will be hindered by the marked use of different criteria for their conceptualization (Ansari & Gottfried, 2021). Similarly, it is still necessary to extend the study of the published instruments requiring testing their validity and reliability in samples of different characteristics located in different countries (Gonzálvez et al., 2021).

Different instruments have been created to evaluate school attendance problems such as the *Self-Efficacy Questionnaire for School Situations* (SEQ-SS) (Heyne et al., 1998) focused on assessing the cognitions of children and adolescents regarding situations related to school attendance, the *Inventory of School Attendance Problems* (ISAP) (Kollmann, Reissner, & Hebebrand, 2019) which attempts to identify attendance problems in both absent and attending students; the *School Non-Attendance Checklist* (SNACK) (Heyne, Gren-Landell, Melvin, & Gentle-Genitty, 2019) which distinguish diverse types of school absence and the *School Refusal Evaluation* (SCREEN) (Gallé-Tessonneau & Gana, 2019) specifically directed at the assessment of one of the types of absenteeism and school refusal. Special mention should be made of the *School Refusal Assessment Scale-Revised* (SRAS-R) (Kearney, 2002) which was originally developed by Kearney and Silverman (1990) and Kearney and Silverman (1993). It is the instrument that has the greatest impact on the study of the underlying functions of school attendance problems (Gonzálvez et al., 2018).

The questionnaire *Assessing Reasons for School Non-Attendance* (ARSNA) was designed to assess the reasons behind the lack of school attendance while simultaneously exploring its relationship with gender, grade and special educational needs as self-reported by the student. As an innovation, the instrument made up of four dimensions corresponding to causes of school absenteeism incorporates the assessment of reasons originated by the existence of "somatic symptoms" and coming from "subjective health complaints." Unlike the case of other instruments used to assess school absenteeism, the ARSNA has not been translated into another language or specifically validated in a population other than that which made up the original sample.

Creating questionnaires is a complex process that should consider certain factors such as having a good theoretical base, selecting a good sample, and assessing its length (Sharma, 2022). Guaranteeing the validity of the instrument is a fundamental action to reduce error in the evaluation process as well as to ensure the authenticity of the knowledge generated given its impact on research (Kimberlin & Winterstein, 2008). The process of translating and adapting a questionnaire is not a trivial task since its correct development will favor its validity and will permit both its use and the comparability of scores between individuals from different cultural groups (Hernández, Hidalgo, Hambleton, & Gómez Benito, 2020; International Test Commission, 2017). Similarly, the construction and validation processes must be supported by standardized statistical analyses that ensure the achievement of the proposed objectives (Ferrando, Lorenzo-Seva, Hernández-Dorado, & Muñiz, 2022). Furthermore, the comparison of scores should be limited to the level of psychometric equivalence to avoid bias in the translation and adaptation process (Muñiz, Elosua, & Hambleton, 2013). According to Muñiz and Fonseca-Pacheco (2019) the results obtained after its administration characterize a questionnaire just as the inferences made from them will be those determining the instrument as valid.

2.1. Significance of the Study and Research Questions

The importance of the present research lies in addressing the need to complete the availability of evaluation instruments to assess the causes of school absenteeism. Thus, the main objective of the study is to validate the *Assessing Reasons for School Non-Attendance* questionnaire in a representative sample of Spanish students aged 12 to 18. According to past empirical evidence, it is expected that the Spanish version will confirm a four-dimensional

model with good statistics regarding its internal consistency and goodness of fit and that it will behave in a consistent and equivalent manner for people of different genders.

3. Methodology

3.1. Research Design

This research was developed upon request and approval of its study protocol by the Ethical Committee of the University of Alicante, Spain (Ref. No. UA-2022-09-29_2). Similarly, authorization was obtained from the Department of Education, Universities and Employment, the autonomous administration entity with educational competencies as well as acceptance from the school council of each participating institute. Finally, written informed consent was collected from parents and guardians of the participants.

A translation of the original ARSNA questionnaire was used for the current investigation.

It was created using the back-translation method by bilingual experts without substantially modifying or eliminating any of the primary items. 30 minutes were allotted to present the test to them and answer collectively the questionnaire on paper during school hours to administer the instrument. Students were informed of the completely voluntary and anonymous nature of the process. A member of the research team was always present to ensure the validity of the process.

3.2. Research Population

The sample was selected using a random cluster sampling process. It came from six public secondary education institutes located in two municipalities of the province of Alicante (Spain). Individuals who did not provide informed consent from parents or legal guardians were excluded as well as those who did not correctly complete the answer sheet. The final sample included 1,168 students between 12 and 18 years (M = 15.03, SD = 2.40) of which 52.4% were girls and 47.6% were boys. The distribution by age represented in Table 1 reveals that 13.6% (n = 159) of the students were 12 years old, 14.3% (n = 167) were 13, 17.6% (n = 205) were 14, 14.3% (n = 167) were 15, 19.1% (n = 223) were 16, 13.7% (n = 160) were 17 and 7.4% (n = 87) were 18. The sample presented a uniform distribution with no differences being found between groups (χ^2 = 5.701, p = .457).

Table 1. Sample distribution by sex and age.

Gender	12 years	13 years	14 years	15 years	16 years	17 years	18 years	Total
Boys	78 6.7%	80 6.8%	107 9.2%	77 6.6%	98 8.4%	81 6.9%	35 3.0%	556 47.6%
Girls	81 6.9%	87 7.4%	98 8.4%	90 7.7%	125 10.7%	79 6.8%	52 4.5%	612 52.4%
Total	159 13.6%	167 14.3%	205 17.6%	167 14.3%	223 19.1%	160 13.7%	87 7.4%	1168 100.0%

3.3. Instrument

Assessing Reasons for School Non-attendance (ARSNA) is an objective self-report instrument to evaluate the reasons for school absence. Originally, it consisted of 17 items with a Likert-type scale of four alternatives (0=never, 1=rarely, 2=sometimes, 3=very often). Each item should be responded to the same question: "How frequently have you missed school over the last three months because…." An initial study by revealed the suitability of a 4-dimensional structure corresponding to a different type of cause of school absence. Each item was associated with only one of these factors: FI: Causes due to somatic symptoms (e.g., "you had a bad cold or fever?"). FII: Subjective health complaints (e.g., " you felt bad?"); FIII: Unjustified absences (e.g., " you were going to do something that was more interesting outside of school?"); FIV: Causes about school refusal with emotional problems (e.g., " you wanted to avoid unpleasant situations in school?"). The model had good internal consistency and goodness of fit with a RMSEA of .055, TLI of .95, CFI of .96, and SRMS of .0046.

3.4. Validity and Reliability Tests

Several tools were used for statistical analysis of the results such as descriptive statistics, confirmatory factor analysis (CFA), root mean square error of approximation estimates (RMSEA), calculation of internal consistency using Cronbach's alpha and omega, cross tabulations and structural models (SEM), standardized root mean square residual (SRMR), Tucker-Lewis index (TLI) and Pearson's product-moment correlation coefficient.

It was assumed that a Tucker-Lewis index (TLI) approaching .95 estimated a good model fit (Tucker & Lewis, 1973). The same value was determined for the comparative fit index (CFI) whose data is considered excellent if exceeding this figure (Hu & Bentler, 1999). For the root mean square (RMS), values ≤ .05 were established to define the goodness of fit of the models (Byrne, 1998; Harman, 1976). The root mean square error of approximation (RMSEA) was determined by figures ≤ .06 scores considered adequate for a good model fit (Hu & Bentler, 1999). As for the chi-square, values ≤ 5 were considered convenient (Schreiber, Nora, Stage, Barlow, & King, 2006).

Calculations were performed using SPSS 26 and MPlus 8.

4. Results

4.1. Confirmatory Factor Analysis

Table 2 presents the goodness-of-fit indices for the models analyzed based on confirmatory factor analysis. The results reveal a 4-dimensional factor structure in 3 of the 5 evaluated models (M2, M3 and M4). The data suggest that although model (M3) has acceptable values, model (M4) proposed by the research team based on the original displays the best goodness-of-fit indices. In this model, the 4 factors confirmed in the original validation of the ARSNA are maintained but item 9 is eliminated and the errors of items 11 and 12 are correlated.

Table 2. Fit indices for the evaluated ARSNA models.

Models	$\chi 2$	d. f.	p	$\chi 2/d.f.$	RMSEA 90% C.I	RMSR	CFI	TLI
M0	8286.28	136	<.001	60.92	0.27(0.222-0.231)	0.38		
M1	2285.21	119	<.001	19.20	0.12(0.120-0.129)	0.10	0.73	0.70
M2	710.08	113	<.001	6.28	0.07(0.063-0.072)	0.07	0.93	0.91
M3	495.87	98	<.001	5.06	0.06(0.054-0.064)	0.06	0.95	0.93
M4	353.42	97	<.001	3.64	0.05(0.042-0.053)	0.05	0.97	0.96

Note: M0= Model without factors; M1= Model with one factor; M2= Model with four factors; M3= Model with four factors eliminating item 9; M4= Model with four factors eliminating item 9 and correlating errors of items 11 and 12; χ^2 = Chi-square; d.f. = Degrees of freedom; RMSEA = Root mean square error of approximation; RMSR = Root mean square residual; CFI = Comparative fit index; TLI = Tucker-Lewis index coefficient.

In addition, a good fit of model M4 was confirmed regarding each of the four factors taken in isolation. In Table 3, you can see in detail the comparison in the statistics obtained for each dimension in both the original research and the current one.

Table 3. Fit indices for each of the four factors of the M4 model.

Fit indices	Somatic symptoms		Health complaints		Unjustified absence		School refusal	
		Own model		Own model		Own model		Own model
RMSEA (90% CI)	0.054 (0.035-0.074)	0.034 (0.000-0.075)	0.062 (0.051-0.075)	0.013 (0.000-0.061)	0.053 (0.034-0.073)	0.035 (0.000-0.094)	0.061 (0.043-0.080)	0.077 (0.044-0.114)
TLI	0.976	0.992	0.977	0.999	0.992	0.993	0.987	0.971
CFI	0.992	0.997	0.989	1.00	0.997	0.999	0.996	0.990
RMS	0.015	0.012	0.018	0.008	0.010	0.007	0.012	0.020

Note: RMSEA = Root mean square error of approximation; TLI = Tucker-Lewis index coefficient; CFI = Comparative fit index; RMSR = Root mean square residual.

4.2. Factorial Invariance as a Function of Gender

Table 4 includes the data resulting from the multigroup confirmatory factor analysis performed to test the measurement invariance of ARSNA as a function of gender. Configurational invariance was tested using a baseline (M0) that proposed the same questionnaire structure for both groups allowing factor loadings and intercepts to vary unrestrictedly between groups. The indices obtained ($\chi 2/df = 2.11$; CFI =.96; RMSEA = 0.037) displayed an adequate model fit. Subsequently, the metric invariance model (M1) was tested restricting the factor loadings so that they were equal between boys and girls with the data revealing a good model fit. The comparison between M1 and M0 obtained a ΔRMSEA value of -0.001 (<.015), a ΔCFI value of .001 (<0.01), and a non-significant $\Delta\chi 2$ value ($p = .229$). The scalar invariance test (M2), a model in which the intercepts and factor loadings were restricted revealed a good fit. When compared with M1, no significant changes were seen with a value of ΔRMSEA of .002, ΔCFI of .009 and a non-significant $\Delta\chi 2$ value ($p = 0.098$). Finally, the strict invariance model (M3) which restricts all parameters also had a good fit. As compared to M2, ΔRMSEA was .002 and ΔCFI was .010. However, the $\Delta\chi 2$ ($p < 0.001$) value was significant in contrast to expectations. Therefore, the existence of measurement and structural invariance of ARSNA based on gender was confirmed.

Table 4. Goodness-of-fit indices for the ARSNA model based on gender.

Gender and invariance models	χ^2	*d.f.*	*p*	χ^2/df	TLI	CFI	RMSEA	$\Delta\chi^2(p)$	ΔRMSEA	ΔCFI
Boys	281.88	112	<.001	2.51	0.923	0.936	0.063 (0.054-0.072)	---	---	---
Girls	282.95	112	<.001	2.52	0.937	0.949	0.059 (0.049-0.067)	---	---	---
M0	410.26	194	<.001	2.11	0.951	0.960	0.037 (0.032-0.042)	---	---	---
M1	425.48	206	<.001	2.06	0.953	0.959	0.036 (0.031-0.041)	15.22 (0.229)	-0.001	0.001
M2	453.51	222	<.001	2.01	0.948	0.950	0.038 (0.033-0.042)	28.03 (0.098)	0.002	0.009
M3	576.37	249	<.001	2.31	0.942	0.940	0.040 (0.036-0.044)	122.86 (<0.001)	0.002	0.010

Note: M0 = Free model (Configural invariance); M1 = Model 0 with factorial loads (Metric invariance); M2 = Model 1 with intercepts (Scaler invariance); M3 = Model 2 with error variance (Strict invariance); χ^2 = Chi-square; d.f. = Degrees of freedom; TLI = Tucker-Lewis index ; RMSEA = Root mean square error approximation ; CFI = Comparative fit index.

4.3. Correlation Coefficients

It was found that all the relationships between each factor making up the structure of the questionnaire and the ARSNA itself were significant. As Table 5 reveals, dimensions I and III reflect positive correlations of moderate magnitude (0.77 and 0.74, respectively). Similarly, factors II and IV also have significant and positive correlation coefficients of a high magnitude (0.83 and 0.81, respectively).

Furthermore, correlations between the different factors are confirmed which also display significant and positive associations. Although manifesting itself in different degrees of magnitude, this situation occurs in all of the correlations. There is a low magnitude relationship between factor I and factors III and IV (.35 and .43, respectively) and between factor II and factors III and IV (.40 and 0.50, respectively). The correlation between factors I and II and between factors III and IV had a moderate magnitude (0.60 and 0.52, respectively).

Table 5. Correlation coefficients between factors and between factors and the questionnaire.

Factors	ARSNA total	Somatic symptoms	Subjective health complaints	Unjustified absences
Somatic symptoms	0.77**			
Subjective health complaints	0.83**	0.60**		
Unjustified absences	0.74**	0.35**	0.40**	
School refusal	0.81**	0.43**	0.50**	0.52**

Note: **The correlation is significant $p < 0.001$.

4.4. Classic Item Analysis

The total score of the ARSNA had an $M = 16.01$ and an $SD = 10.31$ after elimination of item 9 and the correlation of errors of items 11 and 12. The reliability index obtained is considered acceptable with the Cronbach's alpha of .89, an omega value of .94, and a composite reliability of 0.94.

Table 6 presents the means and standard deviations found for each dimension as well as the Cronbach's alpha value and the ω value. The mean of the dimensions ranged between 2.82 (factor III) and 5.66 (factor II) and the standard deviation was between 2.99 (factor I) and 3.50 (factor 2). The Cronbach's alpha value varied between 0.74 (factor I) and 0.81 (factor 2). The ω value ranged between 0.72 (factor III) and 0.82 (factor 2).

Table 6. Statistics for each dimension of the ARSNA model.

Factors	*M*	*SD*	α	ω
Factor I	4.37	2.99	0.74	0.75
Factor II	5.66	3.50	0.81	0.82
Factor III	2.82	3.16	0.76	0.72
Factor IV	3.16	3.32	0.80	0.80
Total	16.01	10.31	0.89	0.94

Note: M= Mean, SD= Standard deviation, α= Cronbach's alpha, ω= Omega.

The frequency of scores obtained in each of the evaluated dimensions offers information on the prevalence of each cause. Table 7 presents the percentages for the points assigned in each factor based on the items making it up. Thus, factor II is the one in which most students report its existence "sometimes" or "fairly often" (48.29%) followed by factor I (34.93%). Factors III and IV are less determinant with factor IV appearing in 25.21% and factor III in 22.81% in this range ("sometimes" and "fairly often").

Table 7. Frequency of scores given for each of the dimensions of the ARSNA model.

Factors	Never	Almost never	Sometimes	Fairly often
Factor I	37.11%	27.95%	23.54%	11.39%
Factor II	28.47%	23.24%	26.67%	21.62%
Factor III	63.23%	13.96%	11.96%	10.85%
Factor IV	57.23%	17.57%	14.06%	11.15%
Total	46.51%	20.68%	19.06%	13.75%

Table 8 shows the means, deviations and alpha values without each item for each of the items themselves, as well as the skewness and kurtosis indices. The mean values ranged between 0.47 (item 13) and 1.63 (item 5); the standard deviation ranged between 0.96 (items 2 and 15) and 1.12 (item 11); and Cronbach's alpha value varied between 0.88 and 0.89. The skewness was maintained between -0.21 (item 5) and 1.78 (item 13) and the kurtosis value was between 0.30 (item 17) and 1.03 (item 13).

Table 8. Statistics for each item of the ARSNA model.

Items	M	SD	A	K	α-i
Item 1	1.32	0.98	0.15	-1.03	0.89
Item 2	0.91	0.96	0.71	-0.59	0.89
Item 3	0.77	0.98	0.96	-0.33	0.89
Item 4	1.36	1.04	0.10	-1.17	0.88
Item 5	1.63	1.11	-0.21	-1.31	0.88
Item 6	1.30	1.07	0.19	-1.25	0.88
Item 7	1.11	1.12	0.48	-1.19	0.88
Item 8	1.62	1.05	-0.16	-1.18	0.88
Item 10	0.82	1.07	0.93	-0.58	0.89
Item 11	0.77	1.12	1.06	-0.45	0.89
Item 12	0.76	1.09	1.06	-0.41	0.89
Item 13	0.47	0.86	1.78	1.03	0.89
Item 14	0.91	1.08	0.80	-0.78	0.88
Item 15	0.62	0.96	1.35	0.55	0.89
Item 16	0.88	1.08	0.80	-0.81	0.88
Item 17	0.76	1.06	1.07	-0.30	0.89

Note: M= Mean, SD= Standard deviation, A= Asymmetry, K= Kurtosis, α-i= Alpha without item.

5. Discussion

Determining the precise causes of school absenteeism continues to be a challenge for researchers and clinicians (Kollmann et al., 2019). Therefore, ensuring the appropriate evaluation of school attendance problems will allow greater knowledge to be obtained while favoring the establishment of both preventive actions and interventions aimed at their reduction or elimination (Hobbs, Kotlaja, & Wylie, 2018).

The main objective of the study was to validate for the first time in a population of Spanish youths the *Assessing Reasons for School Non-attendance* questionnaire (ARSNA). A cross-sectional study was designed with a Spanish adolescent sample aged between 12 and 18 as a cross-cultural adaptation of the ARSNA. It is known that factor analysis is highly sensitive to sample size (Rojas-Torres, 2020) and since over 200 individuals were believed to be necessary to confirm the validity of the results (Ferrando et al., 2022; Yusoff, Arifin, & Hadie, 2021). A large number of students ($N = 1168$) was attained.

Confirmatory factor analysis allows to find the number and nature of the common factors explaining the pattern of correlations between items (Brown, 2015). Following the statistical analyses performed, the four-factor model developed by was replicated confirming the presence of causes based on somatic symptoms, subjective health complaints, unjustified absences or school refusal. Although the original proposal referred to a questionnaire with a total of 17 items, the current research establishes 16 elements since the deletion of one of the items positively impacts the reliability of both the set and the factor in which it is included. Therefore, item 9 ("you felt tired") from factor II of the original ARSNA was eliminated. Then, each of the four factors was made up of the same number of elements (four). Furthermore, it was necessary to correlate the errors of two of the included items: item 11 ("had you gotten together with friends") and item 12 ("were you going to do more interesting things outside of school"), both of which correspond to factor III.

According to the original study of this replicated model offered good internal consistency and goodness of fit. Both studies offered RMSEA values that were below .05 (.055 in the original study and .05 in the current one), values above .95 on TLI (.95 and .96, respectively) and CFI (.96 and .97), and equal or below .05 on SRMS (.0046 in the original and .05 in the current study). The results of the four factors are similar, being good for both studies. The data obtained in the RMS value remained ≤ .05. The scores are above .95 in all dimensions. As for the RMSEA value, the first three factors present good fits (all are below 0.06 except for FII of the study of having a value of .062); FIV had higher scores in both studies but maintains an adequate fit within the interval between .06 and .08, according to Browne and Cudeck (1993).

In parallel, the multigroup confirmatory factor analysis confirmed that regarding the gender-invariant elements of the factor structure, the fit statistics for each of the levels of invariance from configurational to scalar remained adequate, except for the strict invariance of one of the parameters, obtaining a partial invariance. In a

nutshell, the scores may be considered comparable between boys and girls since a change of one unit would be similar between both genders. The models showed equivalence in terms of variances and covariances with ΔS-Bχ^2 values not significant ($p > .05$) and ΔCFI less than .01.

The relationships between items, items and factors, and the dimensions themselves make it possible to know the consistency of the internal structure of the questionnaire (Cook & Beckman, 2006). Good internal consistency ensures the evaluation of a valid construct (Oviedo & Campo-Arias, 2005). According to the criteria of Cohen (1988) for this study, positive and significant correlations were found between the four factors and the overall ARSNA structure. Factors I and II displayed an association having a moderate magnitude ($.51 \leq d \leq .80$) while that of factors III and IV had a high magnitude ($d \geq .80$). found high magnitudes for all the dimensions except for that of FI having a moderate magnitude.

On the other hand, the estimated correlations between the factors were of virtually the same size in both studies (the original and the current one). Thus, both models revealed correlations having a moderate magnitude between factors I and II and factors III and IV. On the other hand, the magnitudes of factors I and II as compared to factors III and IV are low except for the relationship between factors II and IV of the original model which had a moderate magnitude.

The results of the current study confirm the prevalence offered by the students regarding the reasons given to justify their school absence in the study. Subjective health complaints followed by the existence of somatic symptoms are the two most frequently used causes given by the students. However, differences are observed between studies in terms of the frequency given by students in the intensity of absenteeism. Slightly over two out of every ten students (twice as many as in the original study) reported subjective health complaints (factor II) "quite often" as a cause of their absenteeism over the last term. In turn, somatic symptoms had more balanced scores at each point on the scale. For the other two factors as occurred in a similar although higher prevalence was found in our study (approximately 11% at the "quite often" point for both dimensions as compared to 6.2% in the original sample). In the current study, both for factors III and IV, the majority of participants assured that they had "never" or "almost never" missed school due to causes related to them (77.19% and 74.8%, respectively).

6. Limitations and Implications

In order to obtain a deeper understanding of the instrument under study, it would have been desirable to include a section comparing the results obtained with previous studies. Unfortunately, there is no research other than the original one that has used the ARSNA as a means of finding its results.

Similarly, this current study has certain limitations that should be considered. Although the sample may be considered large, it only refers to two municipalities of a single Spanish province. Although the questionnaires are suitable for collecting abstract data or concepts that are difficult to quantify (Artino Jr, La Rochelle, Dezee, & Gehlbach, 2014) the responses regarding absence provided by the students were not verified by the justification provided by their family members or legal guardians nor by the absenteeism data recorded by the educational entities themselves. Therefore, there is a possibility of bias due to self-reporting as occurs in the case of social desirability (Kimberlin & Winterstein, 2008). Furthermore, factors related to the socioeconomic level of the participating students were not analyzed. It is also necessary to assess the relationship between the factors making up the ARSNA with other variables that may be associated with them as well as the convergent validity with other instruments whose measurement considers school attendance problems (for example, the widely used SRAS-R) (Kearney, 2002).

Despite these limitations, this study offers some highly relevant implications. Given the non-existence of other studies, except for the original one, it has been impossible to contrast our results. However, the findings may encourage researchers to use the Spanish-speaking version of the questionnaire to assess the causes of school absenteeism. In addition, this study serves to fill the void existing in terms of instruments considering this area. The ARSNA contains two yet-to-be published factors that refer to the causes originating from the existence of "somatic symptoms" and those originating from "subjective health complaints." These reasons are highly relevant, so much so that as indicated both in the original research and in this study, they are the most prevalent ones declared by the sample population. Future studies may consider assessment of the causes of school absenteeism in distinct age groups (including primary and higher education stages). They may also consider carrying out longitudinal studies. Furthermore, the construction and validation of a version of the ARSNA for family members and teachers may be quite useful as well as new validations with a different sample.

7. Conclusion

The validation of the Spanish version of the *Assessing Reasons for School Non-attendance* (ARSNA) provides crucial insights into the underlying causes of school absenteeism. The study successfully replicated the four-dimensional structure proposed by confirming that somatic symptoms, subjective health complaints, unjustified absentees and school refusal due to emotional issues are key reasons behind school absenteeism. The removal of item 9 and the correlation of errors in items 11 and 12 further enhanced the reliability of the instrument.

The confirmatory factor analysis demonstrated robust internal consistency and goodness-of-fit indices highlighting the suitability of the ARSNA for use in Spanish-speaking populations. Moreover, gender-invariance testing indicated that the instrument performs consistently across both male and female students suggesting its broad applicability in diverse educational contexts.

The findings of the study have significant implications for future research and practical interventions. The ability to accurately assess the reasons for school absenteeism can inform targeted prevention strategies and interventions, particularly for addressing health-related causes. However, limitations such as the localized sample and reliance on self-reported data highlight the need for further validation across different regions and demographic groups.

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