

The predictive ability of school refusal on high social anxiety in Chilean adolescents

Capacidad predictiva del rechazo escolar sobre la alta ansiedad social en adolescentes chilenos

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Abstract

There is a growing interest in quantifying the risk of presenting maladaptive behaviors through the use of multivariate prediction algorithms such as logistic regressions. The objective of this study was to analyze the predictive capacity of school refusal behavior on high levels of social anxiety. The study used a sample of 895 Chilean adolescents (54.3% girls) aged between 14 and 17 years. The School Refusal Assessment Scale-Revised (SRAS-R) and the Social Anxiety Scale for Adolescents (SAS-A) were administered. The results revealed that adolescents with school refusal presented significantly higher scores in social anxiety than their peers with low scores in school refusal. This is due to feelings of social aversion, negative affectivity, fear of evaluation, or the use of this behavior to pursue the attention of significant others. This type of school refusal was found to be a positive and statistically significant predictor of high scores for social anxiety. On the contrary, when school refusal is based on obtaining tangible reinforcement outside the school, this factor acts as a negative and statistically significant predictor of high scores for social anxiety. These findings are discussed with reference to the differences found according to the type of school refusal behavior and its impact on the appearance of high levels of social anxiety.

Keywords: school refusal behavior; social anxiety; predictive ability; adolescents.

Resumen

Existe un interés creciente por cuantificar el riesgo de presentar conductas desadaptativas mediante algoritmos de predicción multivariante como las regresiones logísticas. El objetivo de este estudio fue analizar la capacidad predictiva del rechazo escolar sobre los altos niveles de ansiedad social. Participaron 895 adolescentes chilenos (54.3% chicas) con edades comprendidas entre los 14 y los 17 años. La Escala de Evaluación del Rechazo Escolar-Revisada (SRAS-R) y la Escala de Ansiedad Social para Adolescentes (SAS-A) fueron administradas. Los resultados revelaron que los adolescentes con rechazo escolar debido a sentimientos de aversión social, afectividad negativa, miedo la evaluación o cuando se pretende captar la atención de personas significativas presentaron puntuaciones significativamente más altas en ansiedad social que sus iguales con bajas puntuaciones en rechazo escolar. Este tipo de rechazo escolar resultó ser un predictor positivo y estadísticamente significativo de altas puntuaciones en ansiedad social. Por el contrario, cuando el rechazo escolar se basa en la obtención de refuerzos tangibles externos a la escuela este factor actúa como un predictor negativo y estadísticamente significativo de altas puntuaciones en ansiedad social. Se discuten estos hallazgos en base a las diferencias encontradas según el tipo de rechazo escolar y su repercusión en la aparición de altos niveles de ansiedad social.

Palabras clave: rechazo escolar; ansiedad social; capacidad predictiva; adolescentes.

School refusal behavior (SRB) is identified as a general concept that comprises learners who reject to attend school or who are faced with continual obstacles, which may or may not be based on anxiety-driven behaviors, that prevent them from remaining in class (Hendron & Kearney, 2011). The Diagnostic and Statistical Manual of Mental Disorders (DSM-V) (American Psychiatry Association, APA, 2013) does not classify the school refusal behaviour as an autonomous diagnostic classification. Nonetheless, it can be associated with several mental health disorders such as: separation anxiety disorder, generalized anxiety disorder, oppositional defiant disorder, schooling-related events (critics, punishment, ridicule), or depression (Kearney & Albano, 2004). School avoidant behavior is considered to be one of the major problems due to their adverse repercussions for children and adolescents such as emotional and behavioral difficulties (Dube & Orpinas, 2009), lower academic achievement, psychiatric disorders (Egger et al., 2003), depression, anxiety (González et al., 2018), and, occasionally, even early school dropout (Gubbels et al., 2019).

Recent studies have identified profiles or subgroups that share similar characteristics related to school attendance problems (SAPs) depending on the reasons on which such behaviors are based (Fornander & Kearney, 2020; Kearney et al., 2020). One of the best-known explanatory theoretical models is the functional model, which has been established using the four conditions for the emergence and maintenance of SRB: (1) Avoidance of stimuli that provoke negative affectivity; (2) Escape from aversive social and/or evaluative

situations; (3) Pursuit of attention from significant others; and (4) Pursuit of tangible reinforcement outside of the school (Kearney, 2002). Students who have high scores in the first factor are considered to present generalized anxiety disorder (GAD), constant pleas, and somatic complaints with the goal of not having to attend school (Haight et al., 2011). Those who show high scores in the second factor are considered to have GAD and social anxiety and show withdrawal behaviors (Kearney & Albano, 2004). Students with high scores in the third factor are positively correlated with separation anxiety disorder and oppositional defiant disorder (ODD) (Kearney & Albano, 2004). Finally, students with high scores in the fourth factor are considered to also have ODD (Dahl, 2016). In the first two conditions, refusal is maintained by negative reinforcement (e.g., experiencing stage fright during an oral presentation). While in the last two conditions, refusal is maintained due to positive reinforcement (e.g., staying at home and using social media). Not only do studies on school refusal behavior profiles differentiate between different grouping of learners with SAPs but they also examine the connection of these profiles with other variables associated with internalizing problems, such as anxiety, depression, or stress. González et al. (2019) revealed in a non-clinical sample of Spanish adolescents that the profile of high school refusal behavior, characterized by high scores in the four conditions proposed by the functional model, showed higher scores in social anxiety. People with social anxiety suffer fear and anxiety in social environments in which they will be negatively evaluated or judged by others, and this may restrict their occasions to have significant social relationships (Alden & Taylor, 2004; Hofmann, 2007; Rapee & Heimberg, 1997). According to the DSM-V (APA, 2013), social phobia or social anxiety disorder is the noticeable fear or anxiety, which is out of proportion to the real threat posed by the social situation and to the sociocultural setting, concerning one or more social environments wherein the subject is exposed to probable scrutiny by several more (social interactions, being observed, and performing in front of the others). The fear, anxiety, or avoidance provoke noteworthy pain or impairment in social, occupational, or other imperative areas of functioning, without being attributable to the physiological effects of a substance and not better explained by the symptoms of another mental disorder (panic disorder, autism spectrum disorder).

School and social anxiety are widespread problems and have a significant impact on adolescents' growth (Delgado et al., 2019). Previous research has demonstrated that anxiety disorders, and specifically social anxiety, show comorbidity with SRB (Kearney & Albano, 2004; Richards & Hadwin, 2011; Van Ameringen et al., 2003). Positive associations between unexcused absences and social anxiety have been revealed by studies developed both with community samples (Ingul et al., 2012, 2013; Pflug & Schneider, 2016) and with clinical sample (Hansen et al., 1998). However, little evidence of an association between truancy and social anxiety assessed via diagnostic interview has been also revealed with a community sample (Egger et al., 2003). Overall, there is evidence to suggest that school absenteeism

may be associated with symptoms of social anxiety disorder but findings need to be more consistent, and there was a lack of longitudinal research (Finning et al., 2019).

The rate of anxiety and depression is increasing among children and young people. The pooled anxiety prevalence estimate from random-effects meta-analysis was 19.1%, differing by study location: research performed in the United States were found to report a higher prevalence (20.8%) than analyses conducted in Europe (17.2%). Whilst the prevalence of depressions was 14,3% (Barker et al., 2019). Similarly, in the meta-analysis conducted by (Racine et al., 2021) the pooled prevalence throughout COVID-19 estimates that child and adolescent depression and anxiety were 25.2% and 20.5%, correspondingly. According to Strauss et al. (1988), children who were rated by their teachers as highly anxious were less liked and more actively disliked by their classmates than their non-anxious peers. The age of onset for anxiety has been found to be between 15-21 years old (de Lijster et al., 2017). Nevertheless, the age period in which anxiety disorders develop is relatively wide. Separation anxiety disorder, specific phobia, and social phobia begin in childhood and adolescence (Legerstee et al., 2019). Therefore, recent policies have focused on the primary prevention of mental disorders (Caldwell et al., 2019). Anxiety may be correlated with poor attendance at school and this fact may lead to a variety of adverse consequences: the fear of social rejection, personal distress, and the impairment of interpersonal and occupational functioning (Finning et al., 2019; Sultana et al., 2017). Socially anxious individuals are afraid of being watched, judged, and criticized negatively by others. They face extreme distress in different social situations such as participating in class, publicly presenting work, and asking the teacher questions both in public and in private (Bernstein et al., 2007). High levels of anxiety are linked to the first three factors suggested by the functional model of SRB (Kearney & Albano, 20004). For adolescents with social anxiety disorder (SAD) that is left untreated, there are increased possibilities for school dropout, academic underachievement, and later unemployment (Rapee & Spence, 2004).

Despite the need to treat this condition and the high prevalence rates of SAD, most young people suffering from this disorder do not receive any treatment since their symptoms are misinterpreted as signs of shyness, which is presumed to disappear with age (Tillfors et al., 2011). The analysis of the literature suggests that anxiety symptoms, specifically social anxiety, are correlated with SRB. Thus, the present study focuses on this matter using a sample of Chilean adolescents and seeks to provide new empirical evidence regarding the relationship between SRB and social anxiety by means of the School Refusal Assessment Scale-Revised (SRAS-R) (Kearney, 2002), as well as the Social Anxiety Scale for Adolescents-Revised (SAS-A) (La Greca & López, 1998).

The objective of this research was to analyze the relationship between school refusal behavior and social anxiety in Chilean adolescents. Specifically, the objectives were: (a) to analyze if there are differences in the mean scores for SRB between children with high and

low levels of social anxiety and (b) to examine the predictive capacity of SRB on scoring high for social anxiety. Considering that the scientific literature has generally found SRB to be significantly and positively linked to social anxiety (García-Fernández et al., 2016; González et al., 2019), students with high social anxiety are expected to score significantly higher in SRB than their peers with low social anxiety due to their feelings of social aversion, negative affectivity, or the use of the behavior to pursue the attention of significant others (Factors I, II, and III). Moreover, these types of SRB (Factors I, II, and III) are expected to be statistically significant and positive predictors of high levels of social anxiety (Hypothesis 1). Furthermore, in accordance with previous studies that have found SRB that receives tangible reinforcement outside the school (Factor IV) to be significantly and negatively associated with anxiety (García-Fernández et al., 2019; González et al., 2019), students with high SRB (Factor IV) are expected to score significantly lower in social anxiety, and SRB (Factor IV) is expected to be a statistically significant and negative predictor of high social anxiety levels (Hypothesis 2).

METHOD

Participants

The participants of this research were recruited by random cluster sampling. One or two secondary education centers were randomly chosen in the geographical area of Ñuble (Chilean province). Five geographical areas were considered: center, north, south, east, and west. As a result, 9 secondary schools participated in this study. The sample consisted of a total of 895 Chilean adolescents (54,3% girls) whose ages ranged between 14 and 17 years ($M = 15.80$; $SD = 1.05$) (see Table 1). The chi-squared homogeneity test in the frequency distribution showed the absence of statistically significant differences between the sex and age groups ($\chi^2 = 1.12$; $p = .77$).

Table 1
Sample distribution across gender and age

		Age				Total
		14	15	16	17	
Gender	Boys	72 8.0%	113 12.6%	113 12.6%	111 12.4%	409 45.7%
	Girls	84 9.4%	122 13.6%	135 15.1%	145 16.2%	486 54.3%
Total		156 17.4%	235 26.3%	248 27.7%	256 28.6%	895 100%

Instruments

School Refusal Assessment Scale-Revised (SRAS-R) (Kearney, 2002). This instrument is a self-reporting measure consisting of 24 items that are answered on a 7-point Likert scale, ranging from 0 (never) to 6 (always). It evaluates the four functional conditions for the continuance of the school refusal behavior: (1) Avoidance of school-based stimuli that provoke a general sense of Negative Affectivity (ANA) (e. g., how often do you feel worse at school (for example, scared, nervous, or sad) compared to how you feel at home with friends?); (2) Escape from aversive Social and/or Evaluative situations at school (ESE) (e. g., how often do you stay away from school because you do not have many friends there?); (3) Pursuit of Attention from Significant others (PAS) (e.g., how much would you rather be taught by your parents at home than by your teacher at school?); and (4) Pursuit of Tangible Reinforcements outside of school (PTR) (e.g., would it be easier for you to go to school if you could do more things you like after school hours (e.g., being with friends)?). In this study, the version of the SRAS-R validated in Chile was applied (González et al., 2017). The coefficients of internal consistency (Cronbach's alpha test) in this study were: .76 (ANA), .83 (ESE), .78 (PAS), and .69 (PTR).

Social Anxiety Scale for Adolescents-Revised (SAS-A) (La Greca & López, 1998). This measure assesses the experiences of social anxiety and the fear of negative evaluation for adolescents in the context of relationships with peers. It is composed of 22 items (4 of these are neutral and are not considered for obtaining the scores) that are evaluated on a 5-point Likert scale ranging from 1 (not at all) to 5 (all the time). It consists of three subscales: Fear of Negative Evaluation comprises 8 items and reflects fears of negative evaluations from peers (FNE; e.g., "I worry about what others say about me"); Social Avoidance and Distress Specific to New Situations or Unfamiliar Peers consists of 6 items and indicates avoidance and distress in new social situations or with new peers (SAD-N; e.g., "I get nervous when I talk to peers I don't know very well"); and Social Avoidance and Distress that is generally experienced in the company of peers is formed by 4 items, and reveals more generalized social distress that is obvious throughout many social circumstances (SAD-G; e.g., "I'm quiet when I'm with a group of people"). The SAS-A has been analyzed using samples consisting of Spanish (García-López et al., 2001; Inglés et al., 2010; Olivares et al., 2005), Portuguese (Cunha et al., 2004), Chinese (Zhou et al., 2008), Turkish (Cakin et al., 2010), Finnish (Junttila et al., 2010), and North American students (La Greca & Lopez, 1998; Inderbitzen-Noral et al., 2004). All of these studies have indicated that the scale has reasonable reliability and factorial validity. In this study, we used the Spanish version of the SAS-A (Bellón et al., 1996). The coefficients of internal consistency for this measure in the present study were .85, .81, and .81, respectively, for the three factors of the SAS-A.

Procedure

First, a meeting was organized with the schools' principals to describe the study's objectives and ask for their participation. When they agreed to participate in the study, a letter indicating the purpose of the research was given to the students' families or legal guardians. Over a two-week period, students were notified about the study and their voluntary participation. They completed the instruments during class time and had 30 minutes to do so. The participants filled out both questionnaires (15 minutes for the SRAS-R and 15 minutes for the SAS-A). During these sessions, at least one member of the research team was present to resolve any doubts the students may have had and manage the completion of the questionnaire. In compliance with the ethical standards of the Declaration of Helsinki, a statement of ethical principles for research involving human subjects was guaranteed for the study. The study was also authorized by the Ethics Committee of the University of Alicante (UA-2017-09-05).

Statistical analysis

To establish the variations in the mean scores of students having high and low school refusal for the variable of high social anxiety, the sample was divided into groups with high (scores \geq quantile 75) and low (scores \leq quantile 25) school refusal scores. The students' tests were used and the magnitude of the effect sizes for the differences found was assessed with a *d* index (Cohen, 1988): small (.20 - .50), medium (.51 - .79), and large (\geq .80).

A binary logistic regression method was used following a stepwise regression procedure based on the Wald statistic with the aim of analyzing the predictive ability of school refusal on high social anxiety. Once all the statistics had been performed, the odds ratio (*OR*) statistic was applied to interpret the results: scores > 1 showed a positive prediction; scores < 1 indicated negative predictions; and scores = 1 revealed no prediction. The SPSS 22 program was used for all statistical analyses.

RESULTS

Mean differences

The differences in mean scores between students with low and high scores in the dimensions of the SAS-A according to the different school refusal behaviors are presented in Table 2. The results show that adolescents with high scores in the three assessed dimensions of the SAS-A (FNE, SAD-N, and SAD-G) obtained a higher score in the first three factors of the SRAS-R (Factor I, Factor II, and Factor III) than their peers with low scores in the SAS-A. The difference in mean scores was large for the first two factors of the SRAS-R (Factor I, *d* = 1.16; Factor II, *d* = 1.21) whereas, for Factor III, the difference was medium

($d = .75$). Despite this, students with low scores in the three subscales of the SAS-A (FNE, SAD-N, and SAD-G) obtained higher scores when the school refusal behavior was based on the fourth factor of the SRAS-R, obtaining significant differences for the SAD-N and SAD-G dimensions. In this case, the magnitude of the differences was small.

Table 2*Differences in school refusal behavior in students with high and low scores in social anxiety*

Variables	Levene's test		Low score		High score		Statistics				
	<i>F</i>	<i>p</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>d.f.</i>	<i>p</i>	<i>d</i>	
FNE	FI SRAS-R	17.07	<.001	10.56	4.66	17.15	6.33	-12.73	446.97	<.001	-1.16
	FII SRAS-R	73.06	<.001	7.98	3.93	14.83	6.73	-13.51	414.31	<.001	-1.21
	FIII SRAS-R	12.43	<.001	13.89	6.13	19.03	7.37	-8.08	449.30	<.001	-0.75
	FIV SRAS-R	5.09	.025	12.52	4.64	11.98	4.23	1.28	409.61	.200	-
SAD-N	FI SRAS-R	17.95	<.001	10.68	4.75	17.18	6.51	-11.78	413.08	<.001	-1.12
	FII SRAS-R	62.52	<.001	7.92	4.01	14.58	6.94	-12.28	380.70	<.001	-1.14
	FIII SRAS-R	22.16	<.001	13.98	6.22	19.38	7.85	-7.85	416.87	<.001	-0.75
	FIV SRAS-R	7.63	.006	13.35	5.01	12.08	4.38	2.73	372.58	.007	0.27
SAD-G	FI SRAS-R	13.36	<.001	10.82	5.15	17.17	6.45	-11.92	471.57	<.001	-1.07
	FII SRAS-R	66.48	<.001	7.83	3.97	14.66	6.62	-13.96	455.46	<.001	-1.21
	FIII SRAS-R	4.78	.029	14.17	6.60	19.24	7.29	-7.91	455.76	<.001	-0.72
	FIV SRAS-R	2.02	.155	13.56	4.69	12.15	4.43	3.34	474	.001	0.31
Total	FI SRAS-R	21.13	<.001	10.28	4.62	17.35	6.38	-13.64	438.68	<.001	-1.26
	FII SRAS-R	97.58	<.001	7.73	3.60	14.93	6.82	-14.33	377.09	<.001	-1.30
	FIII SRAS-R	12.48	<.001	13.64	6.17	19.43	7.40	-9.08	452.12	<.001	-.84
	FIV SRAS-R	5.74	.017	13.13	4.76	11.94	4.33	2.77	429.89	.006	0.26

Note: FI SRAS-R= Avoidance of stimuli that provoke negative affectivity; FII SRAS-R= Escape from aversive social and/or evaluative situations; FIII SRAS-R= Pursuit of attention from significant others; FIV SRAS-R= Pursuit of tangible reinforcement outside of the school; FNE= Fear of negative evaluation; SAD-N= Social avoidance and distress in new situations; SAD-G= Social avoidance and distress that is experienced commonly in the company of partners.

Predictive capability

Table 3 shows the results of the binary logistic regression analysis for the probability of receiving high scores in the FNE based on SRB. The proportion of correctly classified cases ranged from 66.5% of the cases ($\chi^2 = 59.60$; $p = 0.001$) for the third factor in the SRAS-R and 77% of the cases ($\chi^2 = 151.94$; $p = 0.001$) for the second. The values of the OR were higher than 1 for the school refusal models and the probability of having a high score in the FNE was 1.24 (Factor I), 1.28 (Factor II), and 1.11 (Factor III) times greater for each point that the scores increased, respectively, in the cited school refusal dimensions.

Table 3

Binary Logistic Regression for the probability of presenting high scores on Fear of Negative Evaluation based on school refusal behaviour

Variables		χ^2	R^2	B	E.T.	Wald	p	OR	I.C. 95%
FI	Correctly	135.12	.35	.21	.02	90.06	<.001	1.24	1.19-1.30
SRAS-R	classified: 74.8%								
	Constant	-2.69	.31	74.76	<.001	.06			
FII	Correctly	151.94	.38	.25	.03	88.57	<.001	1.28	1.22-1.35
SRAS-R	classified: 77%								
	Constant	-2.44	.28	76.81	<.001	.08			
FIII	Correctly	59.60	.17	.11	.31	49.20	<.001	1.11	1.08-1.15
SRAS-R	classified: 66.5%								
	Constant	-1.59	.26	34.98	<.001	.20			

Note. FI SRAS-R= Avoidance of stimuli that provoke negative affectivity; FII SRAS-R= Escape from aversive social and/or evaluative situations; FIII SRAS-R= Pursuit of attention from significant others.

Table 4 shows the results of the binary logistic regression analysis for the probability of receiving high scores in the SAD-N based on SRB. The percentage of correctly classified cases ranged from 61.6% of the cases ($\chi^2 = 7.62$; $p = 0.006$) for the fourth factor in the SRAS-R and 74.5% of the cases ($\chi^2 = 129.68$; $p = 0.001$) for the second. The values of the OR were higher than 1 for the school refusal models, and the probability of having a high score in the SAD-N was 1.22 (Factor I), 1.26 (Factor II), and 1.11 (Factor III) times greater for each point that the scores increased, respectively, on the cited SRB dimensions. Despite the values of the OR being lower than 1 for the fourth factor in the SRAS-R, the probability of having a high score in the SAD-N was .94 (Factor IV) times less for each point that the scores increased.

Table 4

Binary Logistic Regression for the probability of presenting high scores on Social Avoidance and Distress in New situations based on school refusal behaviour

Variables		χ^2	R^2	B	E.T.	Wald	p	OR	I.C. 95%
FI	Correctly	116.80	.33	.20	.02	78.80	<.001	1.22	1.17-1.28
SRAS-R	classified: 72.6%								
	Constant	-2.53	.31	64.93	<.001	.07			
FII	Correctly	129.68	.36	.23	.02	76.60	<.001	1.26	1.20-1.34
SRAS-R	classified: 74.5%								
	Constant	-2.27	.28	65.36	.000	.10			
FIII	Correctly	55.48	.17	.10	.01	46.13	<.001	1.11	1.08-1.15
SRAS-R	classified: 65.9%								
	Constant	-1.53	.26	32.34	<.001	.21			

Note. FI SRAS-R= Avoidance of stimuli that provoke negative affectivity; FII SRAS-R= Escape from aversive social and/or evaluative situations; FIII SRAS-R= Pursuit of attention from significant others.

Table 5 shows the results of the binary logistic regression analysis for the probability of receiving high scores in the SAD-G based on SRB. The percentage of correctly classified cases ranged from 60.5% of the cases ($\chi^2 = 11.07$; $p = 0.001$) for the fourth factor in the SRAS-R and 75.1% of the cases ($\chi^2 = 161.59$; $p = 0.001$) for the second. The values of the OR were higher than 1 for the school refusal models, and the probability of having a high score in the SAD-G was 1.20 (Factor I), 1.29 (Factor II), and 1.11 (Factor III) times greater for each point that scores increased, respectively, on the cited school refusal dimensions. Despite the values of the OR being lower than 1 for the fourth factor of the SRAS-R, the probability of having a high score in the SAD-G was .93 (Factor IV) times less for each point that the scores increased.

Table 5

Binary Logistic Regression for the probability of presenting high scores on Social Avoidance and Distress that is experienced commonly in the company of partners based on school refusal behaviour

Variables		χ^2	R^2	B	E.T.	Wald	p	OR	I.C. 95%
FI	Correctly								
SRAS-R	classified: 71.2 %	120.37	.30	.18	.02	85.19	<.001	1.20	1.16-1.25
	Constant	-2.25	.28	64.44	<.001	.10			
FII	Correctly								
SRAS-R	classified: 75.2%	161.59	.38	.26	.02	92.28	<.001	1.29	1.23-1.37
	Constant	-2.43	.27	77.21	<.001	.08			
FIII	Correctly								
SRAS-R	classified: 66.2%	58.07	.15	.10	.01	48.68	<.001	1.11	1.08-1.14
	Constant	-1.44	.25	30.86	<.001	.23			
FIV	Correctly								
SRAS-R	classified: 60.5%	11.07	.03	-.06	.02	10.80	.001	.93	.90-.97
	Constant			1.17	.28	16.99	<.001	3.22	

Note. FI SRAS-R= Avoidance of stimuli that provoke negative affectivity; FII SRAS-R= Escape from aversive social and/or evaluative situations; FIII SRAS-R= Pursuit of attention from significant others; FIV SRAS-R= Pursuit of tangible reinforcement outside of the school.

Table 6 shows the results of the binary logistic regression analysis for the probability of receiving high scores in social anxiety with regard to the total scores in the SAS-A based on SRB. The percentage of correctly classified cases ranged from 57.1% of the cases ($\chi^2 = 7.72$; $p = 0.006$) for the fourth factor in the SRAS-R and 75.4% of the cases ($\chi^2 = 153.55$; $p = 0.001$) for the first. The values of the OR were higher than 1 for the school refusal models and the probability of receiving high scores in social anxiety with regard to the total scores

in the SAS-A was 1.25 (Factor I), 1.32 (Factor II), and 1.13 (Factor III) times greater for each point that the scores increased, respectively, on the cited school refusal dimensions. Despite the values of the OR being lower than 1 for the fourth factor in the SRAS-R, the probability of receiving high scores in social anxiety with regard to the total scores on the SAS-A was .94 (Factor IV) times less for each point that the scores increased.

Table 6

Binary Logistic Regression for the probability of presenting high scores in social anxiety with regard to the total scores in the SAS-A based on school refusal behaviour

Variables		χ^2	R^2	B	E.T.	Wald	p	OR	I.C. 95%
FI	Correctly								
SRAS-R	classified: 75.4%	153.55	.38	.23	.02	98.15	<.001	1.25	1.20-1.32
	Constant	-2.94	.31	86.80	<.001	.05			
FII	Correctly								
SRAS-R	classified: 77.4%	173.86	.44	.28	.02	93.14	<.001	1.32	1.25-1.40
	Constant	-2.78	.29	88.91	<.001	.06			
FIII	Correctly								
SRAS-R	classified: 68.1%	74.42	.20	.12	.01	59.64	<.001	1.13	1.10-1.17
	Constant	-1.87	.27	47.58	<.001	.15			
FIV	Correctly								
SRAS-R	classified: 57.1%	7.72	-.02	-.05	.02	7.58	.006	.94	.91-.98
	Constant			.85	.28	9.43	.002	2.36	

Note. FI SRAS-R= Avoidance of stimuli that provoke negative affectivity; FII SRAS-R= Escape from aversive social and/or evaluative situations; FIII SRAS-R= Pursuit of attention from significant others; FIV SRAS-R= Pursuit of tangible reinforcement outside of the school.

DISCUSSION

The aim of this research was to analyze the relationship between school refusal behavior and social anxiety in Chilean adolescents. According to the first hypothesis, due to feelings of negative affectivity, social aversion, or the use of the behavior to pursue the attention of significant others (Factors I, II, and III), students with SRB were positive predictors of high levels of social anxiety and students with high scores in social anxiety obtained higher mean scores in these three factors of SRB. These outcomes are in line with previous studies that have specified that high scores in the SRB dimensions are most likely to show positive correlations with internalizing difficulties, such as anxiety, depression, stress, and social anxiety (Dube & Orpinas, 2009; Elliott & Place, 2019; González et al., 2018; Ingul & Nordahl, 2013; Kearney & Albano, 2004; Prabhuswamy, 2018).

Regarding the second hypothesis, it was assumed that students who based their SRB on obtaining tangible reinforcement outside the school (Factor IV) showed lower scores in social anxiety and this acted as a significant and negative predictor of high social anxiety. The results support the second hypothesis since the students showed odds ratio values that were lower than 1 in total for the SAD-G and SAS-A scales. These results are consistent with the previous scientific literature as this type of SRB is usually associated with externalizing problems (such as oppositional defiant disorder; Dahl, 2016); González et al., 2020), but not so much with emotional disorders (Kearney, 2002; Kearney & Albano, 2004).

As a result of these findings, it can be concluded that when an adolescent refuses to attend school, social anxiety is more likely to occur, especially when the SRB is based on negative affectivity, social and evaluation fears, or when the student pursues attention from significant others. This fact is particularly significant due to their stage of development because during adolescence they start a period of socialization, growing relationships, learning interpersonal skills, and building their identities and personalities. These aspects affect their social and psychological adjustment, as well as their academic achievement (Kingery et al., 2010; Schneider & Tessier, 2007; Sheldon & Epstein, 2004). In several situations of SRB in adolescents, they have been given attention and support from their families to diminish their anguish at the same time as having access to reinforcing objects such as electronic devices (Rohrig & Puliafico, 2018).

Despite these findings, this investigation has a variety of constraints that should be taken into account for upcoming research. Firstly, the investigation should be based on a larger and more diverse sample. A community sample of adolescents was recruited in this study and it is unknown whether specific samples like students diagnosed with social anxiety disorder or social phobia would get similar results. For this reason, future studies should recruit adolescents diagnosed with social anxiety disorder or social phobia and analyze whether these findings are replicated. Moreover, additional key variables such as country of birth, health, psychological record, and differences between schools should be considered as they would be helpful for future studies. In terms of evaluation, not only self-reports should be used, but different types of data collection sources should be applied in future work, such as interviews, observation records, etc. Additionally, future research should also take into consideration the immediate environments and broader contexts that may impact a person's behavior. According to Inglés et al. (2015) preventing truancy and school refusal is an issue of global concern that affects society as a whole. Hence it is pivotal to determine the elements that could be linked to SRB beyond internalizing type problems. In this sense, the link between school attendance problems and academic factors, family functioning, cultural context and sociodemographic variables (including socioeconomic inequalities) should be considered (Chmielewski, 2019; Cooper and Stewart, 2021; Gubbels et al., 2019; Klein et al., 2020).

On the whole, these findings are relevant for the educational and psychological field since they provide more information about social anxiety and its relationship with school refusal behavior. There is an ongoing need for rigorous studies that can provide evidence to support the different types of responses that students with high social anxiety may show during their learning trajectories. Based on the results of this research, there is a need to identify students' needs, as well as the difficulties they might face. It is highly recommended that education professionals receive appropriate training courses designed to combat and manage social anxiety, depression, school anxiety and other variables that affect pupils. Not only do psychologists and educational professionals give the chance to offer more personalized responses to help students manage with anxiety while at school, but also provide different strategies to the families, such as training courses, talks, and seminars about how to support their children to handle with this problematic (e.g, Coyle et al., 2020; García-Escalera et al., 2017).

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