

# Psychometric Properties of the School Support Scale (SSS) for a Sample of Chilean Adolescents

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## Abstract

This study assesses the psychometric properties of the School Support Scale (SSS), part of the CHKS's Resilience Youth Development Module (RYDM; [Furlong et al., 2009](#)), among 231 sixth- and seventh-grade students in urban public schools in Chile. Results indicated satisfactory psychometric properties, replicating a unifactorial structure observed in prior research ([Hanson & Kim, 2007](#)), where items related to *caring relationships* and *high expectations* loaded onto a single factor, *school support*. Significant correlations were found with measures of life satisfaction and school-related affect. These findings underscore the scale's utility in evaluating student perceptions of school support and highlight avenues for future research to enhance its applicability across diverse educational contexts.

## Keywords

school support, school staff, psychometric properties, adolescents

## Introduction

Perceived social support is understood as the information that leads a person to believe they are cared for, loved, valued, and considered as belonging to a group ([Tomás et al., 2020](#)). This construct is often used as an indicator of people's quality of life, highlighting its importance in their positive development ([Harandi et al., 2017](#)).

Within the school context, this support can come from various sources such as teachers, peers, administrators, and other adults in the school community ([Gutiérrez et al., 2017](#)). The school

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environment offers different kinds of perceived social support, such as emotional, instrumental, organizational, evaluative, among others (Federici & Skaalvik, 2014; Suldo et al., 2009).

Traditionally, the study of perceived social support in the school context has focused on peer and teacher–student relationships (Jia & Cheng, 2024; Tomás et al., 2020). However, there has been increasing recognition of the importance of other adults within the school staff in this relationship (e.g., principals, teachers, and support staff). Literature indicates that perceiving support from the school staff positively impacts academic success, school engagement, and satisfaction with school (Elmore & Huebner, 2010; Martinot et al., 2022) and reduces risky behaviors and mental health symptoms (Alivernini et al., 2019; Tennant et al., 2015).

Despite recent advancements, the scientific literature has predominantly focused on defining school staff as teachers (Littlecott et al., 2018). This narrow focus has limited the development of validated instruments with established psychometric properties for assessing students' perceptions of support from school staff (Lozano et al., 2023). Current instruments often assess only specific types of support and are typically subscales of broader tools with limited validation evidence. Therefore, there is a critical need for concise instruments that have robust psychometric properties to accurately measure social support provided by the all school staff (teachers and non-teachers).

This study examined the psychometric properties of the School Support Scale (SSS), designed to measure students' perceived support from school staff. This instrument is a subscale of the California Healthy Kids Survey (CHKS) Resilience Youth Development Module (RYDM), which itself was designed to measure external resources or protective factors available to students (Furlong et al., 2009). The SSS is a brief scale (6 items) that explores students' perceptions of caring relationships, high expectations, and meaningful participation within the school community (Hanson & Kim, 2007), specifically regarding school staff. Psychometric studies of the CHKS instrument, including successive exploratory and confirmatory factor analyses, consistently observed that scales including items on caring relationships and high expectations in the school environment loaded consistently within the same factor (Hanson & Kim, 2007); findings corroborated through focus groups with students. To maximize construct validity and minimize redundancy among scales, it was proposed to merge the “*caring relationships*” and “*high expectations*” scales into a single “*School Support Scale*” (Hanson & Kim, 2007).

## Method

### Participants

The sample for this study consisted of 231 sixth- and seventh-grade students. The mean age of the participants was 11.9 years ( $SD = 0.8$ ). Of the total sample, 41.7% identified as female, 54.8% as male, and 3.5% identified with a category called “other”.

The sample was drawn from three public educational institutions in the Metropolitan region of Chile. The data were collected as part of a psychometric study of the scale presented within a more extensive study, which involves the implementation of a school well-being promotion program.

### Instruments

**School Support Scale (SSS).** This scale is part of a larger instrument, the CHKS's Resilience Youth Development Module (RYDM) (Furlong et al., 2009). The scale, in its version for secondary students (aged 11–18 years), comprising six items. Responses are on a four-point Likert scale ranging from *strongly disagree* to *strongly agree*. The scale score ranges from 4 to 24. Previous research has indicated good reliability ( $\alpha = .91$ ) (Furlong et al., 2011; Hanson & Kim, 2007).

*Satisfaction with Life Scale (SLSS)*. Developed by Huebner (1991), this scale measures global life satisfaction in children and adolescents aged 8–18 years. Psychometric properties for Chilean adolescents have been established (Benavente, Cova, Alfaro et al., 2018). Various studies (Galindez & Casas, 2010; Huebner, 1991) have reported high reliability coefficients ( $\alpha = .79-.89$ ). In the current sample, the reliability coefficient was .88.

*Subjective Well-being in School Scale (BASWBSS)*. Developed by Tian et al. (2014), this scale consists of two subscales measuring students' satisfaction with school and associated affects. In Chile, psychometric properties were reported by Benavente, Cova, Pérez-Salas et al. (2017), demonstrating reliability comparable to international studies ( $\alpha = .79$ ). In the current sample, the reliability coefficient was .72.

## Analysis

First, a descriptive analysis of the responses was conducted, followed by an examination of the instrument's structure using principal component analysis. Subsequently, the model was evaluated through confirmatory factor analysis. Model fit was assessed using the following criteria: Comparative Fit Index (CFI) of .95 (Batista-Foguet & Coenders, 2000; Byrne, 2010); Tucker–Lewis Index (TLI) greater than .90 (Bentler, 1992); Normed Fit Index (NFI) equal to or greater than .95 (Hu & Bentler, 1999); Root Mean Square Error of Approximation (RMSEA) of .08 (Browne & Cudeck, 1993); and Standardized Root Mean Square Residual (SRMR) of .08 (Hu & Bentler, 1999).

Data were analyzed using IBM SPSS Statistics version 20, and confirmatory factor analysis (CFA) was conducted using Amos™ 19. All analyses assumed a confidence level of 95%.

## Results

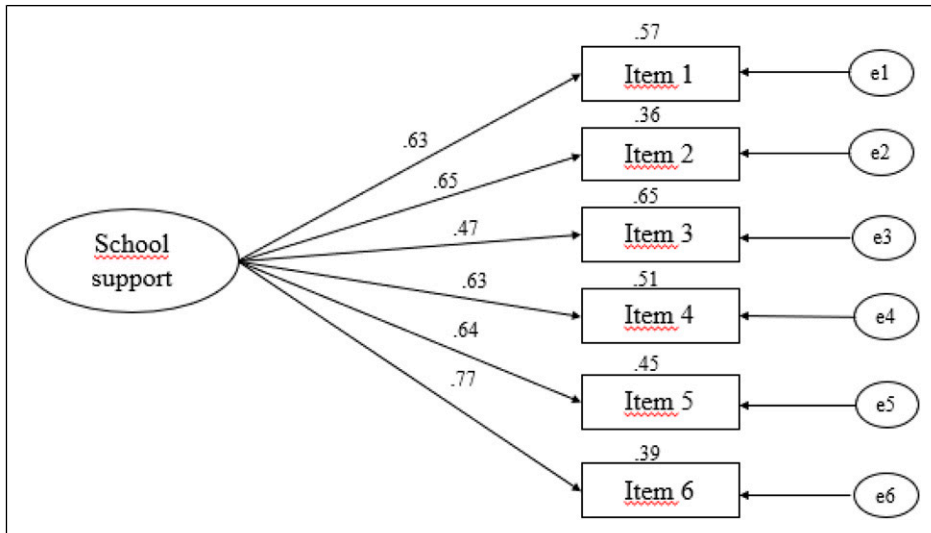
### Distribution of Responses

First, the characteristics of each item were analyzed to understand their distribution. Table 1 reports the means, standard deviations, skewness, kurtosis, and factorial loadings of each item and the total score of the scale.

**Table 1.** Means, Standard Deviations, Skewness, Kurtosis, and Factor Loadings of the Scale.

There is a teacher or another adult at my school who...	<i>M</i>	<i>SD</i>	<i>A</i>	<i>K</i>	<i>CF</i>
1. really cares about what happens to me	3.01	0.98	−0.81	−0.30	.506
2. tells me when I do a good job	3.25	0.79	−0.97	0.69	.520
3. notices when I am absent from class	3.10	0.92	−0.83	−0.16	.347
4. always wants me to do my best	3.21	0.92	−1.01	0.13	.486
5. listens to me when I have something to say	3.19	0.88	−0.88	0.02	.529
6. believes I will succeed	3.03	0.98	−0.68	−0.59	.663
Total score	3.14	0.65	−0.81	0.47	-

Note. *M* = mean, *SD* = standard deviation, *A* = skewness, *K* = Kurtosis, *CF* = factor loadings.



**Figure 1.** Confirmatory factor analysis for the single-factor model.

Item 2 had the highest mean ( $M = 3.25$ ;  $SD = 0.79$ ), while the item 6 had the lowest mean ( $M = 3.03$ ;  $SD = 0.98$ ).

Regarding the distribution of responses, skewness ranged from  $-1.01$  to  $-0.68$ , and kurtosis ranged from  $-0.59$  to  $0.69$ . Following Kline's criteria (2011), the distribution fits a normal behavior.

### *Psychometric Properties of the Scale*

The correlations between items and the total score were all significant and in the expected direction, ranging from  $.31$  to  $.80$ . The reliability was assessed using Cronbach's alpha, yielding a score of  $.80$ .

### **Convergent Validity**

Pearson correlations were established between the SSS and the scales of overall life satisfaction ( $r = .36$ ), school satisfaction subscale ( $r = .52$ ), and affect balance in school subscale ( $r = .26$ ). All correlations were statistically significant ( $p < .001$ ) and in the theoretically expected direction.

### *Factorial Structure*

Initially, the adequacy of the correlation matrices was assessed using the Kaiser–Meyer–Olkin (KMO) measure ( $.848$ ) and Bartlett's test of sphericity ( $398$ ,  $df = 15$ ,  $p < .001$ ), confirming suitability for further analysis. Subsequently, an exploratory factor analysis of the scale, conducted without predetermined factors, revealed a unidimensional solution explaining  $51\%$  of the variance in scores, with item loadings detailed in [Table 1](#).

## **Confirmatory Factor Analysis**

For confirmatory factor analysis, a single-factor model based on the exploratory factor analysis was tested. The fit indices indicated a good fit of the data to the scale structure:  $\chi^2(9) = 9.13$ ,  $p < .425$ , CFI = .999, NFI = .977, TLI = .999, SRMR = .008, RMSEA = .008, and 95% CI (.0001, .071). [Figure 1](#) illustrates the graphical model.

## **Conclusions**

The present study aimed to investigate the psychometric properties of the School Support Scale (SSS), which is part of a larger instrument, the CHKS's Resilience Youth Development Module (RYDM) ([Furlong et al., 2009](#)). The results demonstrate satisfactory levels of the scale's psychometric properties. Similar to previous studies ([Hanson & Kim, 2007](#)), the scale shows a unifactorial structure, where items related to caring relationships and high expectations load onto a single factor: school support. Also, convergent validity was supported by significant correlations between the SSS and measures of overall life satisfaction, suggesting that students' perceptions of school support align positively with their broader satisfaction and emotional experiences within the school environment.

Despite limitations such as a small sample size, preventing more complex analyses, this study, part of a broader project, aims to address these issues in future research. Likewise, as indicated by [Kline \(2015\)](#) and [Clark and Watson \(2016\)](#), the sample size currently presented for this type of psychometric study would be more than sufficient for the analyses conducted. The findings are relevant to urban samples with specific characteristics; caution is advised when generalizing to other groups. Further testing of the scale in larger, more diverse samples—including students of various ages and from rural and urban backgrounds—and advancing group invariance assessment is recommended.

Nonetheless, this study marks progress in developing instruments that capture students' perceptions of school support from all staff, not just teachers, as the SSS demonstrates reliability and validity in the Chilean school setting. These advancements are important for both researchers and practitioners because validating scales across different cultural contexts allows for comparisons across diverse populations. It is also relevant as it provides an efficient and easy-to-use tool to gather relevant information about students' perceptions of the support provided by the school staff, thereby facilitating the implementation of more effective interventions and enabling informed decision-making.

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## Ethical Statement

### Ethical Approval

All procedures performed in this study were conducted in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments. Ethical approval for this study was obtained from the Ethics Committee of University of Desarrollo.

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## Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author.

## References

- Alivernini, F., Cavicchiolo, E., Manganelli, S., Chirico, A., & Lucidi, F. (2019). Support for autonomy at school predicts immigrant adolescents' psychological well-being. *Journal of Immigrant and Minority Health, 21*(4), 761–766. <https://doi.org/10.1007/s10903-018-0839-x>
- Batista-Foguet, J. M., & Coenders, G. (2000). *Modelos de Ecuaciones Estructurales*. La Muralla.
- Benavente, D. M., Cova, F., Pérez-Salas, C. P., Varela, J. J., Alfaro, J., & Chuecas, J. (2018). Propiedades psicométricas de la Escala Breve de Bienestar Subjetivo en la Escuela para Adolescentes (BASWBSS) en una muestra de adolescentes Chilenos [Psychometric properties of the Brief Adolescents' Subjective Well-Being in School Scale (BASWBSS) in a sample of Chilean adolescents]. *Revista Iberoamericana de Diagnostico y Evaluacion Psicologica, 48*(3), 53–65. <https://doi.org/10.21865/RIDEP48.3.05>
- Benavente, M., Cova, F., Alfaro, J., & Varela, J. (2018). Propiedades psicométricas de la Escala de Satisfacción con la Vida de los Estudiantes (SLSS) de Huebner en una muestra de adolescentes chilenos. *Revista Iberoamericana de Diagnostico y Evaluacion Psicologica, 50*(1), 57–70. <https://doi.org/10.21865/RIDEP50.1.05>
- Bentler, P. M. (1992). On the fit of models to covariances and methodology to the Bulletin. *Psychological Bulletin, 112*(3), 400–404. <https://doi.org/10.1037/0033-2909.112.3.400>
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Sage.
- Byrne, B. M. (2010). Structural equation modeling with AMOS. In *Basic concepts, Applications and programming* (2nd ed.). Routledge.
- Clark, L. A., & Watson, D. (2016). Constructing validity: Basic issues in objective scale development. In A. E. Kazdin (Ed.), *Methodological issues and strategies in clinical research*. American Psychological Association. <https://doi.org/10.1037/14805-012>
- Elmore, G. M., & Huebner, E. S. (2010). Adolescents' satisfaction with school experiences: Relationships with demographics, attachment relationships, and school engagement behavior. *Psychology in the Schools, 47*(6), 525–537. <https://doi.org/10.1002/pits.20488>
- Federici, R., & Skaalvik, E. (2014). Students' perceptions of emotional and instrumental teacher support: Relations with motivational and emotional responses. *International Education Studies, 7*(1), 21–36. <https://doi.org/10.5539/ies.v7n1p21>
- Furlong, M., O'Brennan, L., & You, S. (2011). Psychometric properties of the add health school connectedness scale for 18 sociocultural groups. *Psychology in the Schools, 48*(10), 986–997. <https://doi.org/10.1002/pits.20609>
- Furlong, M., Richey, K., & O'Brennan, L. (2009). Developing norms for the California resilience youth development Module: Internal assets and school resources subscales. *California School Psychologist, 14*(1), 35–46. <https://doi.org/10.1007/BF03340949>

- Galindez, E., & Casas, F. (2010). Adaptación y validación de la Students' Life Satisfaction Scale (SLSS) con adolescentes. *Estudios de Psicología*, 1(1), 79–87. <https://doi.org/10.1174/021093910790744617>
- Gutiérrez, M., Tomás, J.-M., Romero, I., & Barrica, J.-M. (2017). Perceived social support, school engagement and satisfaction with school. *Revista de Psicodidáctica*, 22(2), 111–117. <https://doi.org/10.1016/j.psicoe.2017.05.001>
- Hanson, T. L., & Kim, J. O. (2007). *Measuring resilience and youth development: The psychometric properties of the Healthy Kids Survey*. (Issues & Answers Report, REL 2007–No. 034). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory West. <https://ies.ed.gov/ncee/edlabs>
- Harandi, T., Taghinasab, M., & Nayeri, T. (2017). The correlation of social support with mental health: A meta-analysis. *Electronic Physician*, 9(9), 5212–5222. <https://doi.org/10.19082/5212>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Huebner, S. (1991). Initial development of the student's life satisfaction scale. *School Psychology International*, 12(3), 231–240. <https://doi.org/10.1177/0143034391123010>
- Jia, M., & Cheng, J. (2024). Effect of teacher social support on students' emotions and learning engagement: A U.S.-Chinese classroom investigation. *Humanities and Social Sciences Communications*, 11(1), 158. <https://doi.org/10.1057/s41599-024-02634-0>
- Kline, R. B. (2015). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.
- Littlecott, H., Moore, G., & Murphy, S. (2018). Student health and well-being in secondary schools: The role of school support staff alongside teaching staff. *Pastoral Care in Education*, 36(4), 297–312. <https://doi.org/10.1080/02643944.2018.1528624>
- Lozano, V., Ekornes, S., Gamlem, S., Torrisen, W., & Synnevag, H. (2023). Perceived teacher support in secondary education from 1980 to 2019: An integrative review. *Cogent Education*, 10(1), 2164648. <https://doi.org/10.1080/2331186X.2022.2164648>
- Martinot, D., Sicard, A., Gul, B., Yakimova, S., Taillandier-Schmitt, A., & Maintenant, C. (2022). Peers and teachers as the best source of social support for school engagement for both advantaged and priority education area students. *Frontiers in Psychology*, 13, Article 958286. <https://doi.org/10.3389/fpsyg.2022.958286>
- Suldo, S., Friedrich, A., White, T., Farmer, J., Minch, D., & Michalowski, J. (2009). Teacher support and adolescents' subjective well-being: A mixed-methods investigation. *School Psychology Review*, 38(1), 67–85. <https://doi.org/10.1080/02796015.2009.12087850>
- Tennant, J., Demaray, M., Malecki, C., Terry, M., Clary, M., & Elzinga, N. (2015). Students' ratings of teacher support and academic and social-emotional well-being. *School Psychologist*, 30(4), 494–512. <https://doi.org/10.1037/spq0000106>
- Tian, L., Wang, D., & Huebner, S. (2014). Development and validation of the brief adolescents' subjective well-being in school scale (BASWBSS). *Social Indicators Research*, 120(2), 615–634. <https://doi.org/10.1007/s11205-014-0603-0>
- Tomás, J., Gutiérrez, M., Pastor, A., & Sancho, P. (2020). Perceived social support, school adaptation and adolescents' subjective well-being. *Child Indicators Research*, 13(5), 1597–1617. <https://doi.org/10.1007/s12187-020-09717-9>