

## Psychometric properties of the Structural Violence Beliefs Scale for Youth Propiedades psicométricas de la Escala de Creencias de Violencia Estructural para Jóvenes

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### Abstract

Structural violence occurs by means of social stratification, injustice, political or economic inequity, race, gender, or other conditions. It creates different opportunities and decreases the possibility of covering basic needs. To validate the Structural Violence Beliefs Scale for Youth (SVBS-Y). The scale was developed following a sequential design, starting with content validation by judges, followed by Exploratory and Confirmatory Factorial Analyses (CFA). Finally, we sought to obtain criterion validity evidence with the "Attitudes Toward the Poor Scale". The sample consisted of 852 students (445 females and 407 male), with an average age of 16.44 (SD = 1.92) years. The CFA confirmed three dimensions: (a) Inequity and prejudice towards people with fewer resources, (b) Interest in equal opportunities, and (c) Ruling class privilege. A  $\rho = .64$  indicated an adequate criterion (concurrent) validity. This study provides evidence that the SVBS-Y is a reliable and valid instrument in Mexican youth.

**Keywords:** human security; assessment; poverty; inequality; prejudice; social stratification; opportunities; basic needs; violence; society; health; well-being; scales

### Resumen

La violencia estructural ocurre por medio de la estratificación social, la injusticia, la desigualdad económica o política, por razones de raza, sexo u otras condiciones, que hacen que existan diferentes oportunidades y un decremento en la posibilidad de cubrir necesidades básicas. Validar de una escala de Creencias de Violencia Estructural para Jóvenes. La escala se desarrolló mediante un modelo secuencial derivativo. Inicialmente se evaluó la validez de contenido a través de jueces, luego la validez de constructo mediante análisis factorial exploratorio y confirmatorio. Finalmente, se examinó la validez de criterio con la escala de "actitudes hacia los pobres". La muestra se compuso por 852 estudiantes (445 mujeres y 407 hombres), con un promedio de 16.44 años (DE= 1.92). El Análisis Factorial Confirmatorio arrojó tres dimensiones: (a) inequidad y prejuicios hacia las personas con menos recursos, (b) interés en igualdad de oportunidades, y (c) privilegio a la clase dominante. Se encontró una correlación de .64 relacionada con las actitudes hacia las personas con menos recursos. La Escala de Creencias de Violencia Estructural para Jóvenes es válida y confiable para aplicarse en población mexicana.

**Palabras clave:** seguridad humana; medición; pobreza; desigualdad; prejuicio; estratificación social; oportunidades; necesidades básicas; violencia; sociedad; salud; bienestar; escalas

### 1. Introduction

Mexico is among the 25% of countries with greater inequality worldwide (Esquivel, 2018). In 2016, 43.6% of Mexicans lived in poverty and 7.3% in extreme poverty. Among the indigenous population, this percentage increases to 85.5% for women, 80.5% for older adults, and 78.5% for minors (National Council for the Evaluation of Social Development Policy, CONEVAL, 2018).

Structural Violence (SV) refers to the type of violence that can be identified by: (a) the exploitation of a social group in favor of the dominant class, (b) the indoctrination, by an elite, to influence the thinking and perception of citizens, (c) a reduction of a sense of personal recognition and personal and social dignity,

(d) the development of a class consciousness, and (e) the limitation or conditioning of freedom by external, economic, cultural or social factors. The repression, exploitation and inequalities of women is an example of SV (Galtung, 2016).

Galtung (1969) characterized SV for being indirect, not committed by an actor, and evidenced by the inequality of power distribution, resources, and opportunities, resulting in social injustice. SV tends to become naturalized and benefits the ruling class. This type of invisible violence permeates all subsystems and has adverse effects on identity, freedom, and the development of people. However, those who benefit from the inequality of resource distribution and opportunities do not perceive this type of violence since it is often normalized. Galtung (1990) describes three types of violence: direct violence, which is visible and well known, structural violence impairs basic human needs, and cultural violence is symbolic and serves to inhibit the victim's response, also SV is the base of the previous two.

According to Mosquera (2017), SV is implicit in a social system and can be represented by injustice, inequity, and abuse of power. It permeates the culture and can be transformed into direct violence. For Rylko-Bauer & Farmer (2016) SV refers to inequalities and injustices related to the way that the social and economic structure has been conformed and is related to the notions of gender, race, religion, and class among others. Lee (2016) states that SV "harm[s] people by preventing them from meeting their basic needs. Although less visible, it is greater in scope and implications than any other type of violence and might include health, economic, gender, and racial disparities" (p.110). This kind of deep invisible violence infringes more damage than the direct and cultural violence (Lee, 2016; Vazquez & Barragan, 2017).

SV limits the quality of life from the governmental, religious, legal, and cultural spheres (Lee, 2016; Sossenheimer et al., 2018). Aguilar-Foreo & Muñoz (2015) consider that the naturalization of SV comes from deep historical roots, adding gender violence, symbolic violence, unemployment, underemployment, and social marginality as other indicators of SV. Loeza (2017) mentions that the SV's inequality can be clearly seen in the Mexican economic elites, who increase their privileges by taking advantage of the population and a poor rule of law.

Measuring violence can be challenging. Considering its tangible nature, direct violence is easier to measure than cultural or SV. The challenge in evaluating cultural violence lies in measuring values, perceptions and worldviews that legitimize direct and structural violence. With SV, one needs to evaluate how institutions and structures impair the ability of an individual or group to grow and prosper, making it more difficult to measure (Ramsbotham et al., 2011).

Considering that structural violence is manifested economically by-way-of unequal resource distribution and the denial of basic human rights, both legitimized by the way the social fabric is being generated, and thus, there is no identifiable actor, a good potential way of measuring SV is by identifying how it affects youths' beliefs regarding the privileges of the dominant class, racial, sex and origin disparities, how customary these differences are, the access to knowledge, other languages, formal education, and even dress codes, physical limitations and other beliefs that are implicit in the way youths act and relate to each other.

Specifically, for Mexican youth, we find that murder is the first cause of death among males (Molina, 2018). The direct violence allows us to depict the culture associated with gangs, drug trafficking, school harassment and even the structural violence that promotes unequal opportunity, impunity, injustice, abuse of power and bad governance, also social discrimination, based on race, socioeconomic status, skin color among others (Mosquera, 2017). Youth respond to their specific cultural settings. The environment and context models and molds new generations. Violence has physical, psychological, and developmental consequences. In Latin America, youth are exposed to violence in multiple environments, so they can be seen both using violence and bullying their peers as well as excluding themselves socially (especially the native population). All these factors have a negative impact on their expectations about their future (Diaz, et al., 2015; Soto & Trucco, 2015).

Considering that Mexico currently has the first eight places of the 50 most violent cities in the world (Citizen Council for Public Safety and Criminal Justice, 2021) and that SV is considered the grounds of the direct and cultural violence, it is consequently crucial to generate measurement of the structural violence beliefs (SVB) to be able to detect and intervene in a preventive manner. Therefore, the purpose of this study was to develop and validate a scale that measures SVB among Mexican youth, by evaluating the perception

of social inequality and the cognitions that legitimize it in three dimensions: classism, interest in equal opportunities, and ruling class privilege. The proposed scale is relevant in two ways, to our knowledge this is the first attempt to measure SVB (as searched in Google Academic, Redalyc, and Scielo). Also, once a valid and reliable measurement instrument is available, we can evaluate the efficacy of interventions aiming to reduce SVB and peacebuilding programs.

## 2. Methods, techniques, and instruments

### *Participants*

The sample included 852 high school students aged 12 to 18 years ( $M$  age = 16.4,  $SD$  = 1.9; 53% female) from the city of San Luis Potosi, Mexico. Participants were randomly recruited from three institutions: a private institution with high school students (15.2%), a private college-preparatory school (46.6%), and a public vocational-technical high school (38.2%). The inclusion criteria were the willingness to participate and the ability to respond autonomously. The study was Institutional Review Board approved (213 034 2019) and participants provided written consent as suggested in the APA's ethical principles (American Psychological Association, 2017) and the Helsinki declaration (World Medical Association, 2013).

### *Instruments*

The Structural Violence Beliefs Scale for Youth (SVBS-Y) initially consisted of 64 items that covered five dimensions: social, political, economic, cultural, and educational violence. The items are answered with a Likert-type scale ranging from 1 (completely disagree) to 5 (completely agree).

The Attitudes Towards the Poor Scale (APS) measures the affective and cognitive components of attitudes towards the poor. It was developed by Cozzarelli, Wilkinson & Tangler (2001) and partially adapted to a Spanish speaking population by Reyna & Reparaz (2014). The affective component of the (APS) has 12 items on a Likert-type scale and was adapted with a sample of 177 Argentinian college students. The authors report a unifactorial solution that explained 30.2% of the variance and a Cronbach's  $\alpha$  of .83.

### *Procedure*

Following DeVellis's (2012) and Muñiz & Fonseca-Pedrero's (2019) steps for scale development, the first phase was establishing content validity, followed by the cross-sectional analytic design for Exploratory and Confirmatory Factor Analysis, and lastly, an evaluation of criterion validity by the correlation of the APS and the SVBS-Y that was expected to have a positive and medium or high association.

The first 73-item pool was sent to four experts to evaluate content validity, although only three responded. Experts were chosen based on their expertise in the fields of psychometrics, education, violence, or justice. For each item, the experts were asked to evaluate their pertinence, ability to discriminate, as well as syntax, semantics, and wording on a scale from 1 to 5.

According to Merino & Livia (2009), Aiken's  $V$  helps quantify content validity, i.e., each item's relevance with respect to a content domain based on the evaluation of expert judges. Aiken's  $V$  can range from 0.00 to 1.00, with 1.00 representing a perfect scoring between the judges regarding the validity of the evaluated contents. Following Merino and Livia's (2009) suggestion of a cutoff point of  $V = .70$ , we dropped 9 items. An Aiken's  $V$  of 0.86 was found, which is above the lower limit recommended by Merino and Livia. Using Kendall's Coefficient of Concordance, we calculated a moderate agreement ( $W = .43$ ,  $p < .001$ ) between our judges (Dube, 2008).

The Structural Violence Beliefs Scale for Youth (SVBS-Y) consisted of the 64 remaining items. The participants were asked to anonymously respond to the SVBS-Y and the Attitudes Towards the Poor Scale (Reyna & Reparaz, 2014). This last scale was chosen to evaluate concurrent validity due to its intrinsic implication as a clear manifestation of SVB that has become direct violence. The three schools were chosen considering their different social strata and resources to maximize the variation and evaluate predictive validity when comparing them. For example, most of the graduates from the public vocational-technical high school do not aspire to a university degree, unlike the other two schools. The student body of the private college-preparatory school comes from lower SES than the private high school with international recognition and a religious education. Table 1 shows the percent of participants recruited from private or public institutions, whether they live with both parents, and their interest in pursuing a college education.

Furthermore, the perceived SES distribution was: Low-income  $n = 5$  (.6%), Medium-Low  $n = 47$  (5.5%), medium  $n = 576$  (67.6%), medium-high  $n = 210$  (24.6%), High  $n = 14$  (1.6%).

**Table 1.** Sample characteristics.

**Tabla 1.** Características de la muestra.

Variable	Institution	Living with both parents	Interest in a college degree	Socioeconomic status	
Response Rate	Private	$n = 527$ (61.58%) 128 from high school, 399 from preparation school.	Together $n = 632$ (74%)	Interested $n = 796$ (93.4%)	Low 5 (.6%) Medium low 48 (5.6%) Medium 574 (67.3%) Medium high 211 (24.7%)
	Public	$n = 325$ (38.2%)	Separated $n = 220$ (25.8%)	Not Interested $n = 53$ (6.2%)	High 14 (1.6%)

Note: Sample characteristics.

Note: Características de la muestra.

### Data analysis

Item-level and factor analyses evaluated the psychometric performance of the SVB (Nunnally & Bernstein, 1994). Corrected item-total correlations were calculated to estimate the SVBS-Y item's discriminatory power. Reliability was assessed with Cronbach's  $\alpha$ . For the factor analyses, the sample was randomly split in half. A *polychoric* correlation matrix was used to run an EFA with a robust promin rotation and a robust diagonally weighted least squares extraction method (Goretzko et al., 2019; Lorenzo-Seva & Ferrando, 2019; Lloret-Segura et al., 2014) using software Factor (Lorenzo-Seva & Ferrando, 2013). A parallel analysis with optimal implementation (Timmerman & Lorenzo-Seva, 2011) was used to retain items with loadings larger than .4. The model's adequacy was evaluated with a robust analysis, Kelley's Criterion  $< .047$  (Kelley, 1935) and a Weighed Root Mean Residual (WRMR)  $< 1$ .

Following the data analysis procedure described by Morata-Ramírez et al. (2015), Hu & Bentler (1999) & Dimitrov (2012) and Galán & Sánchez-Armáss (2018), we ran a structural model CFA using maximum likelihood rotation on the second half of the sample using Amos (v. 23.0; Arbuckle, 2014) and assessed construct validity maintaining  $GFI > .90$ ,  $CFI > .90$ ,  $RMSEA < .08$  and  $Cmin/DF < 5$ . We also found  $AFGI > .90$ ,  $TLI > .90$  and  $NFI > .90$ , as recommended by , based on Afthanorhan & Afthanorhan (2013). Once these characteristics were met, we proceeded to evaluate the scale's convergent validity using Average Variance Extracted (AVE)  $> .5$  in every dimension and finally discriminant validity by having all the correlations between constructs below 0.85. All these moments imply a Composite Reliability (CR)  $> .7$  in every dimension. To evaluate the evidence for criterion validity, we used Pearson's  $r$  between the total score of both scales (using JASP, 16.0, powered by R).

### 3. Results and discussion

In this section, in line with the paper's objectives, we describe the initial procedure for evaluating content validity, finding it adequate. We then report the results of exploratory and confirmatory factor analyses, which produced sound models, and finally we describe the criterion validity of the final model using the APS, revealing a moderately high association.

With the first half of the sample ( $n = 436$ ), we calculated the Kaiser-Meyer-Olkin measure of sample adequacy test of .85, and Bartlett's test of sphericity was significant ( $\chi^2(276) = 2103.1$ ,  $p < .001$ ), indicating that the items shared enough common variance to attempt a factor analysis. Based on Mardia's Test of Multinormality ( $Kurtosis = 763.489$ ,  $skewness = 41.318$ ,  $p < 0.0001$ ) we used a polychoric correlation matrix for the EFAs. Twenty-four items, with loadings smaller than .4 or loadings greater than .4 on two dimensions, were eliminated. The final EFA, shown in Table 2, yielded a 3-factor solution with a total explained variance of 43.36% ( $F1 = 28.08\%$ ,  $F2 = 8.15\%$ , &  $F3 = 7.41\%$ ) and a correlation matrix determinant of 0.00736.

The final EFA solution yielded a Kelley's Criterion of .0478 and the following fit statistics: *GFI* = .99, *AGFI* = .98, *NNFI* = .99, *BIC* = 829.707, Minimum Fit Function Chi Square with 207 degrees of freedom = 167.541, *RMSEA* = 0.021, and *RMSR* = .0477. Table 2 shows the Overall Reliability of Fully - Informative prior Oblique N-EAP (ORION; Ferrando & Lorenzo-Seva, 2016), variance, factor determinacy, total sample means and standard deviation.

**Table 2.** EFA rotated Loading matrix of the SVB scale for youth.

**Tabla 2.** AFE matriz de carga rotada de la Escala CVE para jóvenes.

Variable	Prejudice and exclusion	Privileging the ruling class	Interest in equal oportunities	M	S.D.
1. Beauty is an important criterion to obtain a good job.	<b>.45</b>	.13	-.21	1.26	.45
2. I consider that people should get together with people of the same skin colour.	<b>.79</b>	-.18	.05	3.22	1.05
4. It is unsafe for people of an upper class to use public transportation.	<b>.55</b>	.06	-.18	3.19	.56
5. The "blond people" are usually wealthier.	<b>.54</b>	.08	-.07	1.35	.48
6. I feel ashamed of using public services (examples: social security, public transportation, public restrooms, etc.)	<b>.65</b>	-.07	.08	1.37	.52
7. People of a lower class throw rubbish on the Streets.	<b>.49</b>	.08	-.06	1.87	.37
8. I consider that less smart people deserve to be treated poorly.	<b>.66</b>		.11	1.06	.26
9. People who dress as "cholos" are gang members.	<b>.61</b>	.03	-.28	1.64	.49
12. I consider the division of social classes a need.	<b>.51</b>	.01	.00	1.33	.78
14. I feel embarrassed when seeing with certain people.	<b>.58</b>	-.18	.17	2.04	1.04
15. I treat better people when I know they will bring me a benefit.	<b>.48</b>	.07	.00	1.73	.93
17. I treat people better accordingly to the way they are dressed.	<b>.56</b>	.11	.08	2.10	1.04
*28. It should be invested in adaptations for people with disabilities.	.04	.00	<b>.69</b>	1.68	1.01
*29. I want all people to have the same opportunities.	.04	.04	<b>.77</b>	2.13	1.15
41. People from indigenous towns should not run the country.	.05	.26	<b>.40</b>	2.95	.97
47. Surveys should only consider the opinion of working people.	-.05	<b>.64</b>	-.07	2.97	1.18
48. Only people with higher studies should be allowed to vote.	-.03	<b>.70</b>	.11	2.67	1.19
49. Only experts on a field should have an opinion about it.	-.04	<b>.66</b>	-.26	1.96	1.18
50. Only people with a high economic level have Access to justice.	-.01	<b>.67</b>	.11	1.90	1.03
*54. We all should learn an indigenous language.	-.04	-.05	<b>.42</b>	2.73	1.04
57. People who have a low income is because they want to.	.08	<b>.41</b>	.01	2.11	1.28
59. People with lighter skin are more beautiful.	.09	<b>.40</b>	.22	3.13	1.19
*60. Everyone should learn english.	.15	.12	<b>-.42</b>	2.37	1.04
64. People without a bachelor degree can only work in factories.	.11	<b>.45</b>	.11	2.38	1.13
ORION	.88	.83	.81	1.90	1.11
Variance	4.12	2.59	1.97	2.66	1.07
Factor determinacy index	.94	.91	.90		

*Note:* ORION. Overall Reliability of Fully Informative prior Oblique N-EAP, also the Means and Standard deviation are based on the full sample. \*= are reverse ítems.

*Nota:* ORION. Confiabilidad General Completamente Informativa previa Oblicua de la N-EAP, también las medias y la desviación estándar se basan en la muestra completa. \*= son ítems invertidos.

A CFA was performed on the second half of the sample to test the 3-factor solution obtained by the EFA. Three additional items were eliminated based on their residual covariance > 3.0. This new model (m2 in Table 3) had adequate psychometric properties but did not reach a p-value higher than .05. Following Afthanorhan & Afthanorhan's (2013) and Brown's (2012) recommendations, we further eliminated 7 items with residual covariance > 2 and obtained the desired model characteristics. Figure 1 shows the final model and Table 3 shows the fit statistics for the evaluated models. Table 4 presents the validity and reliability elements for the final CFA model and Table 5 presents the scale divided by sex and general population, it can be seeming the difference among population.

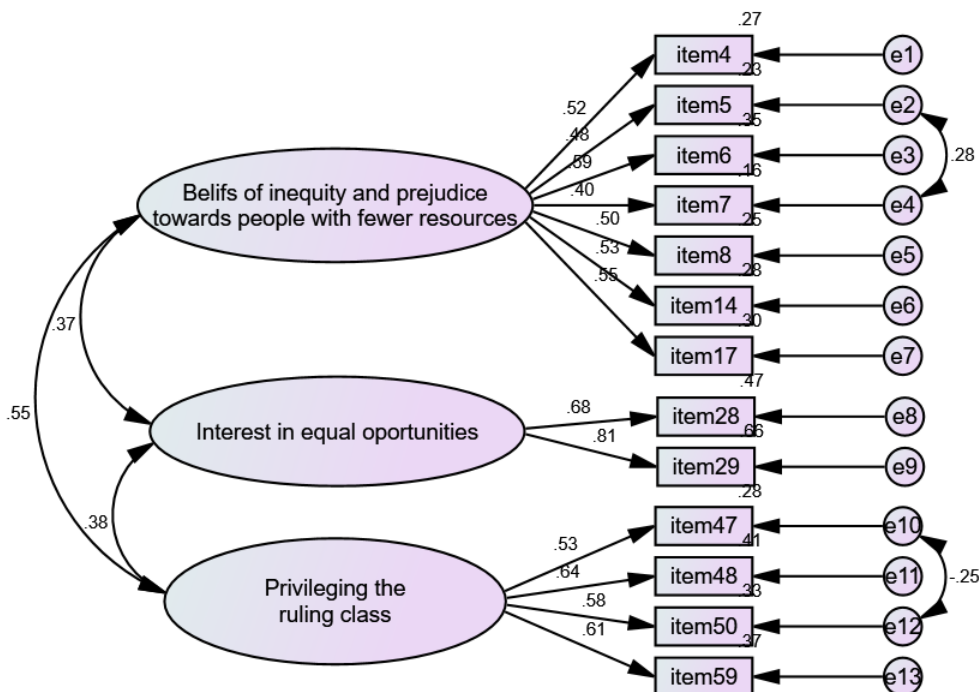
**Table 3.** Different CFA model fit measures of the Structural Violence Beliefs Scale for Youth.

**Tabla 3.** Diferentes medidas de ajuste del modelo AFC de la Escala de Creencias de Violencia Estructural para Jóvenes.

Model	$\chi^2$	$C_{min}/df$	$p$	SRM R	GF I	AGF I	TL I	CF I	NF I	RMS EA	pclose	ECV I
Initial	502.9	2.02	.001	.058	.90	.88	.82	.84	.73	.05	.53	1.46
M2	273.6	1.49	.001	.047	.94	.92	.92	.93	.83	.03	.99	.89
Final	102.11	1.21	.087	.031	.96	.95	.97	.98	.91	.02	1	.42
Unifactorial	340.59	3.90	.001	.073	.89	.85	.71	.76	.71	.08	.00	.98

Note: Estimated using maximum likelihood with a sample of 415 participants. SRMR = Standardized Root Mean Square Residuals; GFI = Goodness of Fit Index; AGF = Adjusted Goodness of Fit Index; TLI = Tucker Lewis Index; CFI = Comparative Fit Index; NFI = Normed-Fit Index; RMSEA = Root Mean Square Error of Approximation; ECVI = Expected Cross Validation Index.

Note: Se realizó la estimación con máxima verisimilitud. SRMR = residuos de media cuadrática estandarizada; GFI = Índice de Bondad de Ajuste; AGF = Índice de Bondad de Ajustado; TLI = Índice de Tucker Lewis; CFI = Índice de ajuste comparativo; NFI = Índice de ajuste normado; RMSEA = Error cuadrático de la Media de aproximación; ECVI = Índice de Validación Cruzada Esperado.



**Figure 1.** Confirmatory Factor Analysis model for the Structural Violence Beliefs Scale for youth.

**Figura 1.** Modelo de Análisis Factorial Confirmatorio para la Escala de Creencias de Violencia Estructural para Jóvenes.

**Table 4.** Psychometric properties of the final model of the SVBS-Y.**Tabla 4.** Propiedades psicométricas del modelo final de la ECVE-J.

Factor	Composite Reliability (CR)	Average Variance Extracted (AVE)	Variance Maximum Squared Variance (MSV)	Shared Variance
Inequity and prejudice towards people with fewer resources	.70	.25	.31	
Interest in equal opportunities	.71	.56	.19	
Ruling class privilege	.72	.30	.31	

**Table 5.** Normative Data by sex.**Tabla 5.** Baremos por sexo.

Percentil	Inequity and prejudice towards people with fewer resources			Interest in equal opportunities			Privileging the ruling class			Total of SVBS-Y		
	Gr	F	M	Gr	F	M	Gr	F	M	Gr	F	M
1	7	7	7	2	2	2	4	4	4	13	13	13
5	7	7	7	2	2	2	4	4	4	15	14	16
10	8	7	8	2	2	2	4	4	5	16	15	17
15	8	8	9	2	2	2	5	4	5	17	17	19
20	9	9	9	2	2	2	5	5	6	18	17	20
25	9	9	10	2	2	2	6	5	6	19	18	20
30	10	9	11	2	2	3	6	6	7	20	19	21
35	10	10	11	2	2	3	7	6	7	21	20	23
40	11	10	12	3	2	3	7	6	8	22	20	23
45	11	11	12	3	3	3	7	7	8	23	21	24
50	12	11	13	3	3	4	8	7	8	23	22	25
55	12	12	13	3	3	4	8	8	8	24	23	26
60	13	12	14	4	3	4	8	8	9	25	23	27
65	14	13	14	4	4	4	9	8	9	26	24	28
70	14	13	15	4	4	4	9	9	10	27	25	29
75	15	14	15	4	4	5	10	9	10	28	26	30
80	15	15	16	5	5	5	10	10	11	29	28	31
85	16	16	17	6	5	6	11	10	11	31	29	33
90	18	17	19	6	6	7	12	11	13	33	31	35
95	20	18	21	8	8	8	13	13	14	36	34	38
99	27	23	29	10	10	10	16	16	17	46	39	51

Note: Gr= general; F= female; M= male.

Nota: Gr=general; F=femenino; M=masculino.

The SVBS-Y's concurrent (criterion) validity with the APS was satisfactory ( $r = .62, p = .001$ ). To assess predictive validity, we compared the SVBS-Y's total score between schools and found a  $F 7.38 \text{ gl} = 2 (p < .001)$  con un  $W^2 = .015$ , which represent significant differences and a low effect size. Post hoc analyses appear on table 6, where we can see significant differences between the private school, and college prep school and even more so with the public one.

**Table 6.** *Posthoc comparative between institutions and the total of structural violence beliefs.***Tabla 6.** *Posthoc del comparativo entre instituciones con el total de las creencias de violencia estructural.*

Institution		Mean difference	95% CI		TE	t	pTukey
			inferior	superior			
Private	preparation	0.980	-0.332	2.292	0.559	1.754	.186
	public	2.073	0.724	3.421	0.574	3.610	< .001
Preparation	public	1.093	0.122	2.063	0.413	2.643	.023

#### 4. Conclusion

According to the derived model, SV in young people appears as a latent variable of inequity and prejudice towards people with fewer resources, privileging the ruling class, and inversely, an interest in equal opportunities. The SVBS-Y, which presents evidence of reliability and validity, allows us to approach the SV phenomenon from a social perspective (Kira et al., 2018; World Health Organization, 2015).

The SVBS-Y's EFA model achieved the recommended fit statistics, including *GFI*, *AGFI*, *CFI*, and *Kelley's Criterion* among others. The CFA's final model also presented adequate reliability and fit statistics (Malhotra & Dash, 2011), a moderate and significant correlation with the APS and was able to discriminate students by school with a medium effect size, establishing evidence for criterion, construct, and discriminant validity (DeVellis, 2012; Afthanorhan & Afthanorhan, 2013).

There are two key findings that are worth emphasizing. The relationship between SVBS-Y and APS suggests that more SV tends to be associated with negative attitudes toward people with less resources. Also, the differences between schools confirm the theoretical association between SV, classism, and the students' expectation of studying a college degree, where this type of invisible violence affects the lower SES population more and tends to benefit the ruling class. This was an expected finding, considering Loeza's (2017) study concluding Mexican elites have directly benefited from the country's SV. These findings are also congruent with Galtung's (1969) observations that SV manifests itself in benefiting the privileged class and increasing prejudice, and in the attitudes and judgements toward poverty and race according to Farmer, Bourgois & Fassin (2004). Furthermore, Diaz, et al. (2015) consider that SV is related to the way people signify and think about their future, impacting on a society's human capital. This can be observed in the significant difference between private and public institutions, which revealed a greater number of SV beliefs in private institutions.

This study presents a relevant methodological contribution. The main SV research has been theoretical or tends to describe SV without a direct measurement. To the best of our knowledge this is the first proposed scale for measuring SV Beliefs. Future research can address study limitations, including the generalizability of the sample (e.g., by adding young people who have deserted their studies in the sample), and evaluating the psychometric performance of the SVBS-Y in other populations.

The field of social psychology could use the SVBS-Y to empirically reveal potential consequences and implications of SV. If SV is considered the basis of other types of violence, raising awareness, preventing, and attempting to reverse it will contribute to the peacebuilding efforts of our societies. Specifically in Mexico, having a scale that helps visualize SVB will facilitate highlighting inequities, injustice, and power dynamics that perpetuate and accentuate cultural and direct violence. As Pacheco (2015) points out, different life opportunities, unequal distribution of resources, and among others, the limited access to education, generate the means for direct violence to arise. Mexico has 15 of the 50 most violent cities in the world and is ranked 24 out of 163 countries in the Global Peace Index report (Institute for Economics & Peace, 2018). Perhaps one of the most entrenched and deeply rooted implications of SVB is the naturalization and desensitization to violence, since it promotes direct violence, and it ultimately legitimizes an oppressive system. We believe the social sciences are the ones that should address SV and its implications; a task that could be facilitated by a scale that can help visualize SV and its beliefs in Mexican youth.



## 5. Supplementary information

The article exposes a novel way of measuring the consequences of structural violence on the beliefs of young people, elements that endorse and have a strong correlation with attitudes towards people with fewer resources. Significant differences between institutions with low effect size were found between privileged institutions and those with fewer resources, elements that portray the social reality and the legitimacy with which people live their privileges.

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## Contribution of the authors in the development of the work

First author: Conducted the study conceptualization, collected, and analyzed the data, and drafted the initial manuscript. Second to sixth authors: Contributed to the research design, supervised data collection, conducted the statistical analysis, and provided guidance in interpreting the results.

## Conflict of interests

*This article does not present any type of conflict of interest.*

## Ethical responsibility

In the development of the present research, no experimental procedure was carried out. The participants were informed about the study's objective, they were told that their participation was voluntary and anonymous, and they were guaranteed the confidential use of the information provided, exclusively for academic purposes. The participants accepted these conditions and signed the reading of their informed consent on the answer sheet and the institutions accepted the application as responsible. In addition, the instrument was submitted and accepted by the School of Psychology's Ethics Committee.

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