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Relationship Between Different Types of Violence and Mental Health in High School Students From Northern Mexico

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Abstract

Different types of violence have been present in Mexico but there have been few studies that have analyzed their relationship with mental health in adolescents, especially in cities with high rates of social violence. It is important to compare different violence types and their relationship with mental health since not all relationships are the same. It appears that social violence has a stronger relationship with mental health, and for this reason it receives more attention, but other types of violence have a stronger relationship and do not receive as much attention. Chihuahua has been one of the most violent states in Mexico, and Juarez has been the most violent city in the world in 2009 and 2010. The purpose of the study is to compare the relationship of different types of violence (social, cyberbullying, partner violence, and child abuse and neglect) with mental health indicators (depression, anxiety, stress,

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self-esteem, and paranoid thoughts). There were 526 high school students, from the cities of Juarez (n = 282) and Chihuahua (n = 244). The mean age was 16.5 (SD = 1.4) years and 50.6% reported being males. The relationships among the variables were analyzed using Pearson's correlations and multiple linear regressions. Both cities that have experienced social violence like carjacking, kidnapping, and sexual assault, but they have very small or no relationships with mental health indicators. Other types of violence have stronger correlations. Our findings suggest that interventions should not focus only in preventing and dealing with social violence, but that other types of violence must also be addressed in adolescents.

Keywords
partner violence, child abuse, cyberbullying, social violence

Violence and Mental Health in Adolescents and Youth

In the state of Chihuahua, the social violence, caused by a war among drug cartels, is very visible in social media and news outlets, making it a priority for the different branches of government to intervene, and at the same time ignoring other types of violence that affect society, specifically adolescents and youth. Most of the times, for many, social violence is experienced only once or very few times and then it is never experienced again, while family violence, partner violence and cyberbullying can be experienced multiple times during a longer period of time. Research shows that all these types of violence are related to mental health problems (United Nations International Children´s Emergency Fund [UNICEF], 2014; World Health Organization [WHO], 2020): family violence is related to depression, anxiety, low self-esteem, substance abuse, unsafe sexual behaviors, self-destructive behaviors, among others (e.g., Kearney et al., 2010); partner violence in adolescents is related to depression, anxiety, low self-esteem, alcohol and drug abuse and unprotected sex (e.g., Taquette & Monteiro, 2019); cyberbullying is related to depressive affect, anxiety, loneliness, suicidal behavior, somatic symptoms, and low self-esteem (e.g., Cénat et al., 2014; Nixon, 2014); finally, exposure to social violence is related to depression, anxiety disorders, and aggression (e.g., Sheidow et al., 2001). The question is what types of violence are more related to mental health, since social violence is more dramatic (e.g., being witness to a homicide) but momentary, and the rest of the types of violence are less dramatic but more continuous and closer to people.

Chihuahua, the Most Violent Mexican State

The Mexican state of Chihuahua is located in the north border with the United States. Juarez and Chihuahua are the largest cities, with a distance of 361 kilometers between them. People from both cities are very similar in terms of their lifestyle, education, economic, social, and recreational activities (Instituto Municipal de Investigación y Planeación, 2017). Juarez is a border town, and it has a greater population, with 1,391,180 residents, as compared to the capital city of Chihuahua with 878,062 residents (Instituto Nacional de Estadística y Geografía, 2015).

In 2008, violence in Mexico increased due to the war against drug cartels declared by Mexican president Felipe Calderón (Ramírez, 2019). From 2009 to 2010, the state of Chihuahua was the most violent state in the country with 188 homicides per 100,000 population (Aguirre, 2019) and Juarez was ranked as the most violent city in the world with 229 homicides per 100,000 population (Consejo Ciudadano para la Seguridad Pública y la Justicia Penal, 2011). In 2019, the rate was still high with 66.88 homicides per 100,000 population (Quezada, 2020). In 2018, the world rate of homicides was 5.8 per 100,000 (United Nations Office on Drugs and Crime, 2019). In 2009, 2010, and 2019, the rates in Chihuahua and Juarez were higher than the world average.

In 2020, Chihuahua's high school students (grades 10-12) were children when the state became very violent. These children grew up surrounded by a socially violent environment and we expect this might relate with mental health (e.g., Quiñones et al., 2013; UNICEF, 2014; WHO, 2020). In 2019, the Trust for the Citizen Competitiveness and Security (TCCS, 2019) carried out the Survey on the Prevalence of Family and Sexual Violence in the State of Chihuahua. In this survey, children and adolescents (CA), ages 10 to 16, reported the following: 56.4% reported psychological violence, 43.6% physical violence, 18.4% neglect, 4.1% sexual violence, and 22.5% cyberbullying. Worldwide statistics indicate that one in every three CA report psychological violence (WHO, 2020); 30% of CA from Europe report physical violence, being the continent with the smallest rate, and 58% of CA from Northern America, being the continent with the highest rate (Hillis et al., 2016); the highest rates for neglect were from South America, with 57% of boys and 55% of girls reporting it (WHO, 2020); one in ten female CA in all the world report sexual violence (UNICEF, 2020); and, one in ten CA around the world report experiencing cyberbullying (WHO, 2020). Compared to worldwide statistics only psychological violence was higher in Chihuahua.

Regarding partner violence, 50% of the CA sample reported having had a partner, and they were asked if they had experienced the following types of violence with their partner at least one time. The results were that 32.2%

reported psychological violence, 14% physical violence, and 6.1% sexual violence (TCCS, 2019). Only partner violence statistics from Mexico and the United States are shown since very few countries report them (UNICEF, 2017). In the United States, 29% of CA report psychological partner violence (Halpern et al., 2001), 8.2% physical partner violence, and 8.2% sexual partner violence (Basile et al., 2020). In Mexico, 9.4% of females and 8.6% of males report psychological partner violence, and 9.9% of females and 22.7% report physical partner violence (Rivera-Rivera et al., 2007). Sexual partner violence was not reported for Mexico. Psychological violence in Chihuahua is higher than in the United States and Mexico, physical violence in Chihuahua is higher than the United States and Mexican females, but lower than Mexican males. Chihuahua has a lower sexual violence rate than the United States.

Mental Health Variables

According to the WHO (2002) depression, anxiety, stress, and low self-esteem are consequences of different types of violence, like intimate partner violence, child abuse, sexual abuse, and social violence. Twenty percent of the world´s youth experience a mental health condition, including the previously mentioned, and different types of violence function as risk factors for mental health problems (WHO, 2014). Youth in the state of Chihuahua also report symptoms of mental health problems. For example, in 2018 and 2019, one third of high school and junior high students from Juarez (Sosa, 2018a, 2019), ages 11-19, reported symptoms of depression (e.g., depressed mood and anhedonia) and also one-third reported symptoms of anxiety (e.g., feeling anxious and worrying). The WHO (2017) reports that around the world 4% of females and 3% of males, ages 15-19, have a depressive disorder, and 5% of females and 3% of males, in the same age group, have an anxiety disorder. Statistics for Mexican adolescents, ages 15 to 19, were found only for depression, with 12.9% of the prevalence rate (Valadez, 2020). Also, paranoid thoughts (e.g., feelings of being watched and followed) are a psychological indicator that has been found in youth that live in communities with high levels of social violence and it has moderate correlations with anxiety and depression (Esparza-Del Villar et al., 2017).

Social Violence and Mental Health

Chihuahua can be characterized as being one of the few places in the world where social violence rates have been high for several years, and since it also reports other types of violence in its population (e.g., Esparza-Del Villar et al., 2020), we can analyze the relationship of different types of violence with

mental health indicators. There are no studies done in Mexico where different types of violence have been related to mental health indicators in a single sample. Knowing what types of violence have stronger relationships with mental health in CA can help mental health professionals and decision makers (e.g., government officials) to prioritize their resources and efforts to address those types of violence that affect the most. The perception is that social violence has a bigger effect in mental health, so several social interventions have focused mostly on dealing with social violence, and few interventions have focused on the other types of violence (Gobierno del Estado de Chihuahua, 2017). If we compare social violence with other types of violence that are closer, and present for longer periods of time, we might find that the later are related more strongly to mental health indicators (e.g., depression, anxiety, stress, self-esteem, and paranoid thoughts). The purpose of this study was to evaluate how different types of violence relate distinctly with different mental health indicators in Mexican high school students. This study also analyzed the prevalence of social violence experienced in the north of Mexico.

Method

Participants

High school students were recruited in two cities, Juarez and Chihuahua, of the northern Mexican state of Chihuahua, using a convenient sample technique where researchers visited several neighborhoods asking people for their participation. The sample consisted of 526 participants, 282 from Juarez and 244 from Chihuahua, with a mean age of 16.5 (SD = 1.4) years (Table 1). Participants were 50.6% males and 49.4% females, where 65.1% reported their parents as being together and 34.9% separated, with a mean of 2.0 (SD = 1.2) brothers and sisters. Regarding their grades, the mean was 8.3 (SD = 0.9) in a 10-point grade system. The samples from both cities were compared in their sociodemographic variables and there were statistically significant differences in all variables except for the number of participants and if their parents lived together (Table 1).

Materials

Participants were asked to answer a sociodemographic questionnaire that asked about their age, city of residence, gender, marital status of parents, number of brothers and sisters, and current school average grades.

Table 1. Demographic Information in All the Sample and By City.

Variables	All	Juarez	Chihuahua	*t* or χ^2 (*p*)
N	526	282	244	2.75 (.10)
Mean age (*SD*)	16.5 (1.4)	16.7 (1.7)	16.4 (.98)	1.97 (.05)
Gender (%)				
Males	50.6	44.3	57.8	9.51 (<.01)
Females	49.4	55.7	42.2	
Parents (%)				
Together	65.1	64.7	65.6	.04 (.85)
Separated	34.9	35.3	34.4	
Mean number of brothers and sisters (*SD*)	2.0 (1.2)	2.1 (1.3)	1.9 (1.1)	2.07 (.04)
Mean of school grades in a 10-point system (*SD*)	8.3 (0.9)	8.5 (.92)	8.1 (.85)	5.71 (<.01)

The Victimization Scale (Ruiz, 2007) is scale that evaluates two dimensions: first, if a person has been a victim of several types of crimes (social violence, personal), composed of 21 items; second, if someone close to the person has been a victim of several types of crimes (social violence, other), composed of 23 items. This scale was created by the author to measure different types of crimes that were present in Colombia because of drug related activities. The original scale has 17 different types of crimes and in the version of the scale used in this study we included six additional types of crimes. In each item, the person must answer if the crime was experienced by them (personal) or by someone close to them (other) with a "yes" and "no" response format. Examples of the types of crimes include "to have been shot" and "carjacking." Since this scale was validated in Colombia, we analyzed its factor structure with the current sample, and it showed the same structure as in the original study (Ruiz, 2007). Kuder-Richardson 20 analyses indicate good internal reliability values of .76 for the "personal" dimension and .86 for the "other" dimension.

The Partner Violence Scale (Valdez-Santiago et al., 2006) is a measure of partner violence composed of 26 items with a Likert-type response format of four options ranging from "never" to "many times." The scale was created by the authors to measure partner violence in the Mexican population since other scales measured overall violence in the family and did not measured

specifically partner violence. The scale consists of four factors: psychological with five items (e.g., "Has your partner belittled or humiliated you in front of other people?"), sexual with three items (e.g., "Has your partner demanded you to have sex with him/her?"), mild physical with 5 items (e.g., "Has your partner pushed you on purpose?"), and strong physical with 6 items (e.g., "Has your partner tried to choke you?"). The internal reliability for the total scale in a Mexican sample is $\alpha = .99$ (Valdez-Santiago et al., 2006). The original authors do not report internal reliability values for each factor so we report the values using the sample from this study: psychological is $\alpha = .76$, sexual is $\alpha = .85$, mild physical is $\alpha = .85$, and strong physical is $\alpha = .87$.

The Cyberbullying-Victimization Scale (CBQ-V; Estévez et al., 2010), is a short scale consisting of 11 items, that evaluates if a person has been a victim of cyberbullying (e.g., "I have received threatening or insulting online messages"). The response format is Likert-type with three response options: "never," "sometimes," and "frequently." This scale was created using cyberbullying behavior found in a literature review by the authors. The scale has an acceptable internal consistency with a Cronbach's $\alpha = .79$ in a Mexican sample (Gámez-Guadix et al., 2014).

The Child Abuse and Neglect Scale (CANeS; Esparza-Del Villar et al., 2020) was created and validated in a Mexican sample and has 33 items with a 5-point Likert-type response format ranging from "not true" to "very often true." The scale was created by the authors using previous studies to write the items. The scale has six factors: guilt with five items (e.g., "In my house, I was held responsible for everything bad that happened"), bad relationship with parents with seven items (e.g., "My parents did not hug and kiss me"), strong physical abuse with five items (e.g., "I had to go to the doctor because of the beating given to me at my house"), sexual abuse with five items (e.g., "Someone touched me sexually"), mild physical and verbal abuse with seven items (e.g., "In my house they beat me moderately, such as spanking or slapping" and "In my house, they told me hurtful things"), and lack of basic care with four items (e.g., "My parents did not buy food for the house"). The internal reliabilities for the factors are: guilt is $\alpha = .92$, bad relationship with parents is $\alpha = .92$, strong physical abuse is $\alpha = .91$, sexual abuse is $\alpha = .90$, mild physical and verbal abuse is $\alpha = .87$, and lack of basic care is $\alpha = .78$ (Esparza-Del Villar et al., 2020).

The Patient Health Questionnaire (PHQ-9; Spitzer et al., 1994) was created by the authors using the nine symptoms of depression based on the DSM-IV (e.g., "Have you been feeling down, depressed, or hopeless?"). The Likert-type response format has four options ranging from 0 (not at all) to 3 (nearly every day). The internal reliability for the scale, in a Mexican sample, is $\alpha = .81$ (Arrieta et al., 2017).

The Beck Anxiety Inventory (BAI; Beck et al., 1988) is a 21-item scale that measures symptoms of anxiety (e.g., "feeling nervous"). The authors created this scale with items that described the emotional, physiological, and cognitive symptoms of anxiety. It has a response format of four options ranging from "not at all" to "severely." The internal reliability of the scale, in a Mexican sample, is Cronbach's α of .89 (Díaz-Barriga & González-Celis Rangel, 2019).

The Perceived Stress Scale (PSS; Cohen et al., 1983) is a 14-item instrument that evaluates levels of stress in people´s lives in general (e.g., "In the last month, how often have you felt stressed of nervous?"). The authors created this scale to evaluate how unpredictable, uncontrollable, and overloaded people find their lives and to measure if people find their present events stressful. It has a five-option response format ranging from "never" to "very often." In a Mexican sample, the internal reliability of the scale measured by Cronbach's α is .78 (González & Landero, 2007).

The Rosenberg Self-Esteem Scale (Rosenberg, 1965) is composed of 10 items (e.g., "On the whole, I am satisfied with myself") with a Likert-type response format of six options ranging from "totally disagree" to "totally agree." The author created this measure to evaluate people´s self-worth and self-acceptance and it was originally developed to be used in adolescents. In a Mexican sample, the scale only has a general self-esteem factor and the Cronbach's α value for its internal reliability is .79 (Jurado et al., 2015).

The Paranoid Thoughts due to Social Violence Scale (PTSV; Esparza-Del Villar et al., 2016) was validated in a Mexican population and it evaluates eight paranoid thoughts related to social violence with a Likert-type response format that ranges from "never" to "always." This scale was developed by the authors after analyzing the new thoughts reported by many people due to the high rates of social violence in their community. An item of the scale is "When I am walking or driving I feel that I am being followed." The internal reliability of the scale in this study was $\alpha = .85$.

Procedure

This study was submitted and approved by the ethics committee of the university before data collection. Research assistants in Juarez and Chihuahua visited various neighborhoods to recruit participants in their homes. Neighborhoods were selected to be from different parts of the cities but not using random sampling, instead they were chosen by convenience because they had easy access and that were safe. There were 526 participants recruited from 65 different high schools in both cities. Participants were invited to participate in the study, and the study was also explained to the parents and

who were given an informed consent. If parents gave their consent, students were also given a consent form that included the description of the study and their rights as participants. Participants were assured the confidentiality of their participation by not asking identifying information like their names or address. After they read the consent form, they were given the opportunity to ask questions about their participation. The mental health and violence scales were given to participants after all questions were answered and it took them between 20 to 25 minutes to complete. Data was captured and analyzed with descriptive analyses, correlations, and multiple linear regressions (MLRs). Correlation and regression analyses were done with all participants and by city. The main analyses included all of the people of the state, however, since Juarez became the most violent city in the world in 2009 and 2010, we decided to analyze the Juarez sample separately from the Chihuahua sample to explore possible differences in the results.

Results

Prevalence of Crimes

To measure the severity of social violence in Juarez and Chihuahua experienced by participants, the prevalence crime rates were evaluated. In the prevalence of crimes for participants in both cities (Table 2), we found that some of them have experienced serious crimes like telephone extorsions (28.8%), the violent death of a close person (21.3%), aggression or physical threats (16.7%), robbery with violence and intimidation (11%), having been shot (5.2%), carjackings (3.5%), being robbed at gunpoint at home (6.4%), being kidnapped (5%), sexual assault (8.5%), and being chased by strangers (32.7%). These prevalence rates indicate that participants have been witnesses and some of them victims in cities that have experienced social violence due to drug-cartel related problems. There are other types of crimes that are not serious with high prevalence rates like home burglary (24.3%), theft of items from car (24.1%), and home burglary attempt (22.3%).

Participants were also asked if someone close to them had experienced the same types of violence, and these prevalence rates were higher than the rates of their personal experiences (Table 2). The rates of more serious types of violence included telephone extorsions (45.9%), the violent death of a close person (37%), aggression or physical threats (28.1%), robbery with violence and intimidation (33.7%), having been shot (29.3%), car jackings (16.3%), being robbed at gunpoint at home (14.5%), being kidnapped (20.5%), sexual assault (17.6%), and being chased by strangers by strangers (34.9%). High

Table 2. Prevalence in Percent of Types of Violence in All the Sample and By City.

	Total		Juarez		Chihuahua	
Type of Violence	Personal	Other	Personal	Other	Personal	Other
1. Home burglary.	24.3	55.1	18.8	53.7	30.6	56.8
2. Home burglary attempt.	22.3	44.6	21.4	45.4	23.3	43.8
3. Car theft.	17.4	39.6	16.2	36.7	18.7	42.8
4. Theft of motorcycle or bicycle.	15.7	24.1	15.7	24.3	15.7	23.9
5. Vandalism on the car.	18	32.3	17.8	31	18.2	33.7
6. Robbery with violence and intimidation.	11	33.7	12	35.1	9.9	32.1
7. Robbery without violence.	16.2	31.8	18.9	34.8	13.2	28.4
8. Sexual assault.	8.5	17.6	9.1	18	7.8	17.3
9. Aggression or physical threats.	16.7	28.1	16.6	28.9	16.9	27.3
10. Kidnapping.	5	20.5	3.3	20.4	7	20.6
11. Economic extortion.	20	35.1	19.1	34.4	21	35.8
12. Being chased by strangers.	32.7	34.9	35.4	39.6	29.6	29.6
13. Obscene calls from strangers.	20.9	25.7	20.8	27.2	21.1	24.1
14. Violent death of a close person.	21.3	37	24.1	36.6	18.2	37.4
15. Theft of items from the car.	24.1	40.7	23.6	39.1	24.7	42.4
16. To have been shot.	5.2	29.3	5.1	29.7	5.3	28.8
17. Stopped in check points.	9.9	21.3	8.4	15.2	11.5	28
18. Aggression by the army.	9.3	18.6	8.8	19.8	9.9	17.3

(*continued*)

Table 2. Continued

	Total		Juarez		Chihuahua	
19. Carjacking.	3.5	16.3	4	17.2	2.9	15.2
20. Being robbed at gunpoint at home.	6.4	14.5	5.8	13.8	7	15.2
21. Telephone extortion.	28.8	45.9	26.2	44.2	31.7	47.7
22. Disappearance.	-	21.8	-	19.8	-	24

prevalence rates for less serious crimes included home burglary (55.1%), home burglary attempt (44.6%), car theft (39.6%), and theft of items from car (40.7%).

The prevalence crime rates were also reported for each city (Table 2) and in the personal prevalence rates, the sample from Chihuahua reported higher rates in more crimes when compared to the sample from Juarez. When comparing what city had the highest prevalence rates of someone close having experienced crimes, both cities had the same number of crimes with the highest number (11).

Sociodemographic Variables and Different Types of Violence

First, associations between sociodemographic variables and violence types were analyzed. Age had only one statistically significant correlation with the variable of social violence, other (r = .10), where people with higher ages tend to report higher violence values. School grades had significant correlations with cyberbullying (r = –.21), partner strong physical violence (r = –.12), child sexual abuse (r = –.10), child strong physical abuse (r = –.10), and bad relationship with parents (r = –.09), which means that adolescents with higher grades tend to report lower violence values. Number of brothers and sisters had significant correlations with child sexual abuse (r = –.11), and child strong physical abuse (r = –.13), where adolescents with more brothers and sisters tend to report lower violence levels. There were gender differences in partner psychological violence (d = .24), partner sexual violence (d = .30), and partner strong physical violence (d = .33), where males reported higher violence values than females. There was only one significant difference between adolescents with their parents living together or separated with partner sexual violence (d = .23), where adolescents with parents living together reported more violence. It should be mentioned that the effect sizes of all these statistical analyses were small (Cohen, 1992).

Table 3. Comparison of Mental Health and Violence Scales Between Juarez and Chihuahua.

Mental Health and Violence Variables	Juarez		Chihuahua				
	Mean	*SD*	Mean	*SD*	*t*	*p*	*d*
Depression	16.65	5.85	17.59	5.86	–1.80	.07	-
Anxiety	15.40	13.57	18.01	15.11	–2.05	.04	0.18
Stress	24.86	8.23	24.99	8.18	–0.18	.85	-
Self-esteem	46.59	9.60	45.11	10.82	1.62	.10	-
Paranoid thoughts	13.78	4.37	14.88	4.98	–2.69	.01	0.24
Social violence, personal	3.51	3.91	4.19	4.79	–1.74	.08	-
Social violence, other	6.99	5.88	7.18	5.23	–0.36	.72	-
Cyberbullying	12.12	1.71	16.84	5.56	–13.21	.00	1.35
Partner violence, psychological	27.59	7.94	33.34	10.28	–5.15	.00	0.64
Partner violence, sexual	19.04	3.72	29.43	11.16	–9.44	.00	1.45
Partner violence, mild physical	40.22	12.34	55.32	18.51	–7.71	.00	0.99
Partner violence, strong physical	54.85	4.36	89.35	26.97	–13.20	.00	2.32
Child abuse, sexual	5.90	2.69	7.40	3.39	–5.60	.00	0.50
Child abuse, strong physical	5.26	1.27	6.79	3.16	–7.40	.00	0.71
Child abuse, mild physical and verbal	10.93	4.97	12.34	5.18	–3.14	.00	0.28

(*continued*)

Table 3. Continued

Mental Health and Violence Variables	Juarez		Chihuahua				
	Mean	*SD*	Mean	*SD*	*t*	*p*	*d*
Child abuse, guilt	8.18	4.69	9.88	5.01	–3.97	.00	0.35
Child abuse, basic care	4.56	2.04	6.36	3.27	–7.63	.00	0.69
Child abuse, bad relationship with parents	10.80	6.13	12.89	6.05	–3.88	.00	0.34

Comparisons of Mental Health and Violence Between Juarez and Chihuahua

The cities of Juarez and Chihuahua were compared in the mental health and violence indicators (Table 3). Chihuahua scored higher than Juarez in 13 out of the 18 variables that included anxiety, paranoid thoughts, cyberbullying, partner violence (all factors), and child abuse and neglect (all factors). The biggest differences according to Cohen's *d* values were in strong physical partner violence ($d = 2.32$), partner sexual violence ($d = 1.45$), cyberbullying (1.35), and mild physical partner violence ($d = .99$).

Correlations Among Mental Health Indicators and Different Types of Violence

Correlations among mental health indicators and the different types of violence were analyzed in the entire sample and by city (Table 4). The correlations in all the sample were highest between the guilt (child abuse and neglect factor) and the mental health indicators. There were several other statistically significant correlations between mental health indicators and social violence, cyberbullying, child sexual abuse, mild physical and verbal child abuse, basic care (child abuse), and bad relationships with parents (child abuse). Correlations were similar in both cities separately.

Multiple Linear Regressions Without the Partner Violence Indicators

MLRs were evaluated using each mental health indicator separately as predictive variables. A total of five MLRs were analyzed using the indicators of

Table 4. Correlations Among the Indicators of Violence and Mental Health in All the Sample and By City.

	All					Juarez					Chihuahua				
Types of Violence	Dep	Anx	Str	SE	PT	Dep	Anx	Str	SE	PT	Dep	Anx	Str	SE	PT
Social violence, personal	.16**	.12**	.10*	0.07	.20**	.21**	.21**	.17*	.15*	.28**	0.11	0.04	0.04	0.02	0.13
Social violence, other	.16**	.20**	.10*	0.03	.35**	.16*	.22**	0.09	.16*	.37**	.15*	.19**	0.12	–0.09	.32**
Cyberbullying	.23**	.18**	.10*	–.09*	.28**	.28**	.17**	.19**	–0.08	.19**	.24**	.18**	0.10	–0.06	.31**
Partner violence, psychological	–0.01	0.08	0.01	–0.01	0.05	0.03	.33**	0.17	–0.06	0.14	–0.06	<0.01	–0.06	0.04	<0.01
Partner violence, sexual	–0.03	–0.01	–0.10	0.05	0.04	0.05	0.17	0.11	–0.04	0.09	–0.11	–0.07	–.17**	.14*	–0.01
Partner violence, mild physical	0.04	0.06	0.03	0.02	0.09	0.06	.31**	.25*	–0.11	0.16	–0.01	–0.02	–0.03	0.10	0.04
Partner violence, strong physical	0.04	0.02	–0.06	–0.01	0.06	–0.02	0.15	0.05	–0.01	0.06	–0.02	–0.03	–0.10	0.08	0.01
Child abuse, sexual	0.15**	0.16**	0.08	–0.13**	0.27**	0.15*	0.12	0.10	–0.17**	0.13*	0.13*	0.15*	0.08	–0.08	0.34**
Child abuse, strong physical	0.06	0.04	–0.01	–0.03	.20**	0.10	0.05	0.05	.17**	.22**	0.02	–0.01	–0.04	–0.09	.17**
Child abuse, mild physical and verbal	.28**	.23**	.13**	–.20**	.31**	.24**	.22**	.13*	–0.11	.27**	.30**	.23**	0.12	–.26**	.33**
Child abuse, guilt	.41**	.36**	.23**	–.28**	.40**	.37**	.32**	.30**	–.25**	.30**	.43**	.38**	.17**	–.30**	.46**
Child abuse, basic care	.14**	.11*	.12**	–.11*	.22**	0.10	.17**	0.09	–0.02	.18**	.14*	0.02	.14*	–.15*	.21**
Child abuse, bad relationship with parents	.30**	.23**	.23**	–.24**	.33**	.26**	.20**	.21**	–.24**	.20**	.33**	.24**	.26**	–.24**	.44**

Note. *$p < .05$; **$p < .01$.

Table 5. R^2 and Standardized Beta Coefficients of the Multiple Linear Regressions of the Mental Health Indicators Predicted by the Different Types of Violence, Except for Partner Violence, in All the Sample and By City.

	All					Juarez					Chihuahua				
Types of Violence	Dep	Anx	Str	SE	PT	Dep	Anx	Str	SE	PT	Dep	Anx	Str	SE	PT
Social violence, personal	.11*	0.01	0.06	0.07	0.05	.18*	0.08	0.07	–0.05	0.10	0.05	–0.03	0.02	0.09	0.01
Social violence, other	0.02	.14**	0.03	0.10	.22**	–0.03	0.17	0.02	.30**	.25**	0.04	0.10	0.05	–0.08	.18**
Cyberbullying	.17**	.16**	0.08	–0.02	.15**	.18*	0.08	0.14	–0.13	0.09	.20**	.17*	0.07	0.03	.17**
Child abuse, sexual	–0.02	0.05	0.03	–0.07	.11*	0.01	0.08	0.10	–.19**	0.06	–0.06	0.05	–0.02	0.06	.17**
Child abuse, strong physical	–.16**	–.16*	–.17*	.14*	–0.06	–0.07	–0.10	–0.06	.44**	0.04	–.18*	–0.15	–.22*	0.04	–0.09
Child abuse, mild physical and verbal	0.07	0.02	–0.01	–0.04	0.01	0.08	0.03	–0.11	–0.09	–0.01	–0.01	–0.05	–0.01	–0.10	–0.10
Child abuse, guilt	.27**	.35**	.15*	–.21**	.26**	.20*	.29**	.31**	–0.12	.19*	.37**	.39**	0.03	–.22**	.32**
Child abuse, basic care	–0.05	–0.07	0.04	–0.01	0.01	–0.06	0.07	0.02	0.08	.15*	–0.01	–0.16	0.04	–0.06	–0.12
Child abuse, bad relationship with parents	.14*	0.01	0.13	–.14**	0.08	.18*	–0.09	–0.03	–.24**	–0.08	0.10	0.10	.31**	–0.03	.27**
R^2	.21**	.19**	.09**	.12**	.28**	.22**	.18**	.11*	.29**	.22**	.22**	.22**	.12**	.11**	.37**

Note. *$p < .05$; **$p < .01$.

social violence, cyberbullying and child abuse and neglect as predictors (Table 5). The partner violence scale was not included in these analyzes since only 345 participants, out of the 526, reported having a partner. These first MLR analyses included all 526 participants and they were done with all the sample and by city. In the analyzes with all the sample, all R^2 values were statistically significant ranging from .09 to .28. When analyzing the standardized beta values of the predictors we found that the variable of guilt (child abuse) had the strongest values. The social violence indicators only had very few and small statistically significant standardized beta values. Depression and anxiety had the most statistically significant standardized beta values, but paranoid thoughts had the highest R^2 value. The MLRs done in each city show similar results, with some small differences, for example, in the Juarez sample, self-esteem had the highest R^2 value.

Multiple Linear Regressions With All Indicators

In this section of the results, MLRs were evaluated including the partner violence indicators, which means that for these analyzes the sample was reduced to 345 participants since they were the ones that reported having a partner. The mental health indicators were the predictive variables and all the violence indicators were the predictors. In the MLRs with all the sample, all the R^2 values were statistically significant and ranged from .12 to .36 (Table 6). The factor of guilt (child abuse) had the highest standardized beta coefficients in most MLRs. The results of the MLRs in the Juarez sample had two highest R^2 values for anxiety (.51) and paranoid thoughts (.46). In the MLRs from the Chihuahua sample the highest R^2 value was with paranoid thoughts (.39).

Discussion

Prevalence rates of social violence experienced by adolescents reflect the situation in which they have grown up since violence increased when they were children. Some of them report strong experiences like being sexually assaulted (8.5%), kidnapped (5%), shot (5.2%), confronting the violent death of a close person (21.3%), home burglary (24.3%), robbery with violence and intimidation (11%), or robbery without violence (16.2%). The U.S. National Survey of Children's Exposure to Violence reports several exposures to violence categories in adolescents 14 to 17 years old, and some of these categories are similar to the ones reported in this study (Finkelhor et al., 2015): sexual assault (6.1%), household theft (7.9%), robbery (4.3%), and indirect exposure to community violence (2.5%). This survey measures specifically

Table 6. R^2 and Standardized Beta Coefficients of the Multiple Linear Regressions of the Mental Health Indicators Predicted by All the Different Types of Violence in All the Sample and By City.

	All					Juarez					Chihuahua				
Types of Violence	Dep	Anx	Str	SE	PT	Dep	Anx	Str	SE	PT	Dep	Anx	Str	SE	PT
Social violence, personal	0.05	–0.01	0.03	0.03	0.02	0.10	–0.01	–0.01	–0.13	0.09	0.05	–0.03	0.03	0.07	–0.01
Social violence, other	0.05	.15**	0.03	0.02	.21**	0.14	.52**	0.19	0.21	.43**	0.03	0.09	0.03	–0.04	.18**
Cyberbullying	.20**	.19**	0.13	–0.01	.18**	0.02	0.12	0.14	0.01	0.01	.21**	.18*	0.10	0.04	.20**
Partner violence, psychological	–0.10	0.03	–0.05	–0.03	–0.10	–0.06	0.14	–0.15	0.06	–0.13	–0.08	–0.01	–0.01	–0.10	–0.13
Partner violence, sexual	–0.07	–0.06	–0.15	.20*	0.02	0.22	–0.02	0.09	0.03	–0.23	–0.08	–0.06	–0.17	.23*	0.04
Partner violence, mild physical	0.03	0.01	0.12	0.09	0.06	–0.05	–0.05	0.21	–0.05	0.19	0.03	–0.02	0.05	0.12	0.03
Partner violence, strong physical	0.06	–0.03	–0.10	–0.10	–0.04	–0.06	.39**	–0.05	0.01	.36*	0.07	–0.01	–0.09	–0.04	0.01
Child abuse, sexual	0.01	0.06	0.09	–0.04	.16**	–0.02	0.18	0.19	–0.15	.31*	–0.03	0.07	0.03	0.02	.18**
Child abuse, strong physical	–.15*	–0.11	–.16*	–0.01	–0.10	0.11	0.07	.30*	0.04	–0.11	–.18*	–0.14	–.18**	–0.01	–0.10
Child abuse, mild physical and verbal	0.03	0.08	–0.05	–0.04	–0.06	–0.04	–.34*	–.34*	0.04	–0.07	–0.03	–0.07	–0.05	–0.08	–0.11
Child abuse, guilt	.38**	.44**	0.16	–.25**	.35**	.47**	.56**	.54**	–0.22	.35*	.37**	.39**	0.02	.21*	.33**
Child abuse, basic care	–0.06	–.14*	0.05	0.01	–0.06	–0.22	–0.12	0.04	0.14	0.03	–0.02	.17*	0.01	–0.03	–0.12
Child abuse, bad relationship with parents	0.11	0.03	0.11	–0.04	.16*	0.06	–0.18	–0.25	–0.19	–0.10	0.10	0.11	.32**	–0.03	.28**
R^2	.23**	.24**	.13**	.12**	.36**	.26**	.51**	.34**	0.13	.46**	.24**	.22**	.16**	.15**	.39**

Note. Dep = depression; Anx = anxiety; Str = stress; SE = self-esteem; PT = paranoid thoughts.
*$p < .05$; **$p < .01$.

exposure to violence as it was measured in this study, and when we compare these categories, adolescents from Chihuahua report higher rates of exposure than adolescents from the United States.

Another important finding from the study was that social violence was not the type of violence that had the strongest correlations with the mental health indicators. The second important finding was that the guilt factor from the CANeS was the violence factor that had the strongest correlations and standardized beta values with mental health indicators. Other types of violence that are worth mentioning are cyberbullying, strong physical child abuse, social violence experienced by someone close, and bad relationship with parents.

In the MLR analyzes, depression can be explained by guilt, cyberbullying, and strong physical child abuse, and not by the social violence indicators. Anxiety can be explained by guilt, cyberbullying, knowing someone close having experienced violence, and lack of basic care, but not by the indicator of having personally experienced social violence. For stress, only strong physical child abuse was a statistically significant predictor, and for self-esteem partner sexual violence and guilt. Finally, for paranoid thoughts, knowing someone close having experienced violence, cyberbullying, child sexual abuse, guilt, and bad relationship with parents were statistically significant predictors. The strongest predictor in all MLRs is the factor of guilt of the CANeS, and an example item is "In my house, I was held responsible for everything bad that happened" (Esparza-Del Villar et al., 2020). This finding relates to the adverse childhood experiences (ACE) studies of how they can affect people later in life (Chang et al., 2019).

There is a similar study that analyzed several stress burdens, including different types of violence, and their relationship with depressive and anxiety disorders (Turner & Lloyd, 2004). The age range of the sample was 18-23 years, and all the variables were measured using only one or few items. Indicators include child abuse (e.g., Were you regularly physically abused by one of your parents, stepparents, grandparents, or guardians?), partner violence (e.g., Were you ever physically abused or injured by a spouse/boyfriend/girlfriend?), and social violence (e.g., Have you ever been physically assaulted or mugged?). Like our findings, child abuse indicators had the highest relationships with depressive and anxiety symptoms, followed by partner violence, and then social violence. Our study corroborates these findings with the advantage that we included full scales of all variables. More recent studies also find that exposure to violence is related to symptoms of anxiety and depression but in their analyses, they do not analyze each type of violence separately (Andrade et al., 2012; Kadra et al., 2014).

The WHO (2020) reports that approximately one billion children ages 2-17 have experienced physical, sexual, emotional violence, or neglect in the past year. Children and young adults from 10 to 29 years can be exposed to social violence like being assaulted or belonging to a gang. This violence has been perpetrated by parents, caregivers, peers, romantic partners, or strangers affecting lifelong health and well-being. The WHO explains that violence against people under the age of 18 can lead to problems with mental health, substance misuse, high-risk sexual behavior, dropping out of school, perpetrating interpersonal and self-directed violence, unwanted pregnancies, impairment of brain and nervous system, and even death.

Since social violence has been a very visible problem, there has been much attention from the government and civil associations to deal with the aftermath of it (Paniagua & Camargo-González, 2017). Other types of more hidden violence, like family of partner violence, since they tend to be private, are overshadowed by the very public war among drug cartels. Government and civil associations must invest in preventing and dealing with family and partner violence, which have been neglected for some time, as it has been found in this study, it has a stronger relationship with mental health related variables in adolescents. There are several programs focused on teaching adolescents about sexual behavior, but there have been no programs that teach them how to have healthy partner relationships (Juárez & Gayet, 2005). There are problems within families, but there are not enough places that could help them deal with these problems and there is little culture of seeking mental health related services (Mascayano et al., 2015).

In terms of diversity, this study focuses only in adolescents from the north of Mexico and it analyzes a topic that affects them directly by living in one of the most violent cities in Mexico, and for some years, in the world. Even though there are studies that analyze Latino populations in the US, there is very little research published from Mexican populations and even fewer with samples of these ages. Our study adds diversity to the knowledge of the relationship between several types of violence and mental health in the published literature, changing the focus on populations from other places in the world. This is the first study of this nature in Mexico and it contributes to studies where similar problems have been experienced in other countries.

Limitations of this study include that the sample was not randomly selected. Even though the sample came from different high schools in both cities, random sample techniques were not used, and the generalization of these results are limited. There are other mental health related variables that were not included in this study since we did not want participants to fatigue. Future studies should include other variables like post-traumatic stress measures, suicide-related variables, aggressiveness, psychological well-being,

among others. The nature of the study is correlational and thus we cannot infer causality from these findings. This means that different types of violence might not be the cause of mental health problems since it could be that mental health problems cause the different types of violence or maybe a third variable could explain these relationships. Caution should be used in interpreting these correlations and MLRs. There are other states that have experienced similar levels of social violence in Mexico, and our study only focused on Chihuahua. Future studies should include people from other Mexican states. Our study only focused on high school students, and findings should not be extrapolated to adult populations. Other studies should focus on people from other age groups.

Findings from our study should inform Mexican decision makers about the importance of different types of violence and their relationship with mental health indicators. Our study suggests that partner violence and family violence could have some influence in their mental health. Other programs should be funded that can improve the quality of partner and family relationships. There have been some efforts by the Mexican government like the creation of the National System of Integral Protection of Girls, Boys, and Adolescents (NSIPGBA), which analyzes and proposes public policies to protect children and adolescent´s human rights but it has had little impact so far (Sosa, 2018b). There is still much to do, and more initiatives should come from these and similar studies.

There are several proposals of violence prevention programs around the world that could be applied to this population. Among those proposals, the WHO (2020) released an evidence-based violence prevention program called INSPIRE and it include seven strategies to help end violence against children. Each letter of INSPIRE stands for each strategy: Norms and values change, Safe environments, Parental and caregiver support, Income and economic strengthening, Response services provision, and Education and life skills. Based on this program, Chihuahua could benefit from policies and programs that focus on parent training, altering norms that condone different types of violence, providing life and social skills training, the access of adolescents to emergency care, among others that deal with other types of violence beyond social violence.

The results of this study analyzed the relationship between different types of violence with mental health indicators. We found that even though social violence has some significant correlations with mental health variables, other types of violence that include cyberbullying, partner violence, and child abuse and neglect, have stronger correlations. Since Chihuahua has been experiencing social violence due to drug related activities, most of the interventions have focused on social violence. Our findings suggest that high

school students from Chihuahua could benefit from interventions that deal with other types of violence to have a greater impact in their mental health.

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References

Aguirre, M. (2019). *Tasas de homicidios por 100 mil habitantes por entidad federativa en México 1958-2018 [Homicide rates per 100,000 inhabitants by federal entity in Mexico 1958-2018]*. México Máxico. http://mexicomaxico.org/Voto/Homicidios100MEstados.htm

Andrade, L. H., Wang, Y. P., Andreoni, S., Silveira, C. M., Alexandrino-Silva, C., Siu, E. R., Nishimura, R., Anthony, J. C., Gattaz, W. F., Kessler, R. C., & Viana, M. C. (2012). Mental disorders in megacities: findings from the São Paulo megacity mental health survey, Brazil. *PloS One*, *7*(2), e31879. https://doi.org/10.1371/journal.pone.0031879

Arrieta, J., Aguerrebere, M., Raviola, G., Flores, H., Elliot, P., Espinosa, A., Reyes, A., Ortiz-Panozo, E., Rodriguez-Gutierrez, E. G., Mukherjee, J., Palazuelos, D., & Franke, M. F. (2017). Validity and Utility of the Patient Health Questionnaire (PHQ)-2 and PHQ-9 for screening and diagnosis of depression in rural Chiapas, Mexico: A cross-sectional study. *Journal of Clinical Psychology*, *73*(9), 1-15. https://dx.doi.org/10.1002/jclp.22390

Basile, K. C., Clayton, H. B., DeGue, S., Gilford, J. W., Vagi, K. J., Suarez, N. A., Zwald, M. L., & Lowry, R. (2020). *Interpersonal violence victimization among high school students—Youth Risk Behavior Survey, United States, 2019*. https://www.cdc.gov/mmwr/volumes/69/su/su6901a4.htm

Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: psychometric properties. *Journal of Consulting and Clinical Psychology*, *56*(6), 893-897. https://doi.org/10.1037//0022-006x.56.6.893

Cénat, J. M., Hébert, M., Blais, M., Lavoie, F., Guerrier, M., & Derivois, D. (2014). Cyberbullying, psychological distress and self-esteem among youth in Quebec schools. *Journal of Affective Disorders*, *169*, 7-9. https://doi.org/10.1016/j.jad.2014.07.019

Chang, X., Jiang, X., Mkandarwire, T., & Shen, M. (2019). Associations between adverse childhood experiences and health outcomes in adults aged 18-59 years. *PloS One*, *14*(2), e0211850. https://doi.org/10.1371/journal.pone.0211850

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155–159. https://doi.org/10.1037//0033-2909.112.1.155

Cohen, S., Kamarak, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*(4), 385-396. https://dx.doi.org/10.2307/2136404

Consejo Ciudadano para la Seguridad Pública y la Justicia Penal. (2011). *Ciudad Juárez, por tercer año consecutivo, la urbe más violenta del planeta [Ciudad Juárez, for the third consecutive year, the most violent city on the planet]*. http://www.seguridadjusticiaypaz.org.mx/sala-de-prensa/329-ciudad-juarez-por-tercer-ano-consecutivo-la-urbe-mas-violenta-del-planeta

Díaz-Barriga, C. G., & González-Celis Rangel, A. L. (2019). Propiedades psicométricas del Inventario de Ansiedad de Beck en adultos asmáticos mexicanos [Psychometric properties of the Beck Anxiety Inventory in Mexican asthmatic adults]. *Psicología y Salud*, *29*(1), 5–16. https://psicologiaysalud.uv.mx/index.php/psicysalud/article/viewFile/2563/4471

Esparza-Del Villar, O. A., Gutierrez, M., Montañez, P., & Carrillo, I. C. (2016). Validity of a paranoid thoughts due to social violence scale in Juarez Mexico. *European Scientific Journal*, *12*(10), 28-36. https://doi.org/10.19044/esj.2016.v12n10p%p

Esparza-Del Villar, O. A., Vega, M. G., Alvarado, P. M., Saucedo, I. C. C., & Pena, G. M. G. (2017). Mental health and paranoid thoughts in college students from Juarez. *European Scientific Journal*, *13*(10). https://doi.org/10.19044/esj.2017.v13n10p%p

Esparza-Del Villar, O. A., Montañez-Alvarado, P., Gutiérrez-Vega, M., Quiñones-Rodríguez, S., & Gutiérrez-Rosado, T. (2020). Past child abuse and neglect in adults from northern Mexico: Development of a scale and prevalence. *Journal of Interpersonal Violence*. https://doi.org/10.1177/0886260520943729

Estévez, A., Villardón, L., Calvete, E., Padilla, P., & Orue, I. (2010). Adolescentes víctimas de cyberbullying: Prevalencia y características [Adolescent victims of cyberbullying: Prevalence and characteristics]. *Behavioral Psychology/Psicología Conductual*, *18*(1), 73-89. https://www.behavioralpsycho.com/producto/adolescentes-victimas-de-cyberbullying-prevalencia-y-caracteristicas/

Finkelhor, D., Turner, H., Shattuck, A., Hamby, S., & Kracke, K. (2015). *Children's exposure to violence, crime, and abuse: An update*. U.S. Department of Justice. https://ojjdp.ojp.gov/sites/g/files/xyckuh176/files/pubs/248547.pdf

Gámez-Guadix, M., Villa-George, F., & Calvete, E. (2014). Psychometric properties of the cyberbullying questionnaire (CBQ) among Mexican adolescents. *Violence and Victims*, *29*(2), 232-247. https://doi.org/10.1891/0886-6708.vv-d-12-00163r1

Gobierno del Estado de Chihuahua. (2017). *Reconocen aporte de instituciones y organizaciones para contener y prevenir la violencia [They recognize the contribution*

of institutions and organizations to contain and prevent violence]. http://www.chihuahua.gob.mx/reconocen-aporte-de-instituciones-y-organizaciones-para-contener-y-prevenir-la-violencia

González, M. T., & Landero, R. (2007). Factor structure of the Perceived Stress Scale (PSS) in a sample from Mexico. *The Spanish Journal of Psychology*, *10*(1), 199-206. https://doi.org/10.1017/s1138741600006466

Halpern, C. T., Oslak, S. G., Young, M. L., Martin, S. L., & Kupper, L. L. (2001). Partner violence among adolescents in opposite-sex romantic relationships: findings from the National Longitudinal Study of Adolescent Health. *American Journal of Public Health*, *91*(10), 1679–1685. https://doi.org/10.2105/ajph.91.10.1679

Hillis, S., Mercy, J., Amobi, A., & Kress, H. (2016). Global prevalence of past-year violence against children: A systematic review and minimum estimates. *Pediatrics*, *137*(3), e20154079. https://doi.org/10.1542/peds.2015-4079

Instituto Municipal de Investigación y Planeación. (2017). *Radiografía Socioeconómica del Municipio de Juárez 2016, Así comenzó 2017 [Socioeconomic X-ray of the municipality of Juárez 2016, This is how 2017 began]*. https://www.imip.org.mx/imip/node/48

Instituto Nacional de Estadística y Geografía. (2015). *División Municipal [Municipal division]*. http://www.cuentame.inegi.org.mx/monografias/informacion/chih/territorio/div_municipal.aspx?tema=me%26e=08

Juárez, F., & Gayet, C. (2005). Salud sexual y reproductiva de los adolescentes en México: Un nuevo marco de análisis para la evaluación y diseño de políticas [Adolescent sexual and reproductive health in Mexico: A new analytical framework for the evaluation and design of policies]. *Papeles de Población*, *11*(45), 177-219. http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1405-74252005000300008&lng=es&tlng=es.

Jurado, D., Jurado, S., López, K., & Querevalú, B. (2015). Validity of Rosenberg's Self-Esteem Scale on college students from Mexico City. *Revista Latinoamericana de Medicina Conductual*, *5*(1), 18-22. http://www.revistas.unam.mx/index.php/rlmc/article/view/55207

Kadra, G., Dean, K., Hotopf, M., & Hatch, S. L. (2014). Investigating exposure to violence and mental health in a diverse urban community sample: data from the South East London Community Health (SELCoH) survey. *PloS One*, *9*(4), e93660. https://doi.org/10.1371/journal.pone.0093660

Kearney, C. A., Wechsler, A., Kaur, H., & Lemos-Miller, A. (2010). Posttraumatic stress disorder in maltreated youth: A review of contemporary research and thought. *Clinical Child and Family Psychology Review*, *13*(1), 46-76. https://doi.org/10.1007/s10567-009-0061-4

Mascayano, F., Lips, W., Mena, C., & Manchego, C. (2015). Estigma hacia los trastornos mentales: Características e intervenciones [Stigma towards mental disorders: Characteristics and interventions]. *Salud Mental*, *38*(1), 53-58. http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0185-33252015000100008&lng=es&tlng=es.

Nixon, C. L. (2014). Current perspectives: The impact of cyberbullying on adolescent health. Adolescent Health, *Medicine and Therapeutics*, *5*, 143–158. https://doi.org/10.2147/AHMT.S36456

Paniagua, A., & Camargo-González, I. (2017). La implementación de las políticas públicas para la prevención de la violencia en el municipio de Ciudad Juárez, Chihuahua: el involucramiento de la sociedad civil a través de los liderazgos comunitarios [The implementation of public policies for the prevention of violence in the municipality of Ciudad Juárez, Chihuahua: The involvement of civil society through community leaders.]. *Acta Universitaria*, *27*(4), 92-108. https://doi.org/10.15174/au.2017.1457

Quezada, M. (2020, January 15). *Registra Chihuahua aumento de 25.9 puntos en su tasa de homicidios [Chihuahua registers a 25.9-point increase in its homicide rate]*. El Diario de Chihuahua. https://www.eldiariodechihuahua.mx/estado/registra-chihuahua-aumento-de-259-puntos-en-su-tasa-de-homicidios-20200115-1615544.html

Quiñones, J., Esparza, O. A., & Carrillo, I. C. (2013). *La violencia en Ciudad Juárez [Violence in Juarez City]*. Universidad Autónoma de Ciudad Juárez.

Ramírez, C. (2019, October 12). *La Guerra de Felipe Calderón contra el narco: El inicio de una espiral de violencia sin fin [Felipe Calderón's war against narco: The beginning of an endless spiral of violence]*. Infobae. https://www.infobae.com/america/mexico/2019/10/12/la-guerra-de-felipe-calderon-contra-el-narco-el-inicio-de-una-espiral-de-violencia-sin-fin/

Rivera-Rivera, L., Allen-Leigh, B., Rodríguez-Ortega, G., Chávez-Ayala, R., & Lazcano-Ponce, E. (2007). Prevalence and correlates of adolescent dating violence: Baseline study of a cohort of 7,960 male and female Mexican public school students. *Preventive Medicine*, *44*(6), 477–484. https://doi.org/10.1016/j.ypmed.2007.02.020

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press.

Ruiz, J. I. (2007). Cultura ciudadana, miedo al crimen y victimización: Un análisis de sus interrelaciones desde la perspectiva del tejido social [Citizen culture, fear of crime and victimization: An analysis of their interrelations from the perspective of the social fabric]. *Acta Colombiana de Psicología*, *10*(1), 65-74.

Sheidow, A. J., Gorman-Smith, D., Tolan, P. H., & Henry, D. B. (2001). Family and community characteristics: Risk factors for violence exposure in inner-city youth. *Journal of Community Psychology*, *29*(3), 345–360. https://doi.org/10.1002/jcop.1021

Sosa, L. C. (2018b, August 17). Se fragmenta sistema de protección para infantes [Infant protection system is fragmented]. *El Diario*. https://diario.mx/Local/2018-08-17_bdedd98c/se-fragmenta-sistema-de-proteccion-para-infantes-/

Sosa, L. C. (2018a, November 17). Especial: Todos los días 44 menores intentan suicidarse [Special: Every day 44 minors try to commit suicide]. *El Diario*. https://diario.mx/Local/2018-11-17_bdb8ff17/especial-todos-los-dias-44-menores-intentan-suicidarse-/

Sosa, L. C. (2019, November 30). Uno de cada tres estudiantes enfrenta ansiedad o depresión, revela estudio [One in three students faces anxiety or depression, study reveals]. *El Diario*. https://diario.mx/juarez/uno-de-cada-tres-estudiantes-enfrenta-ansiedad-o-depresion-revela-estudio-20191130-1594256.html

Spitzer, R. L., Williams, J. B., Kroenke, K., Linzer, M., DeGruy, F. V., Hahn, S. R., Brody, D., & Johnson, J. G. (1994). Utility of a new procedure for diagnosing mental disorders in primary care. The PRIME-MD 1000 study. *Journal of the American Medical Association*, *272*, 1749-1756. https://doi.org/10.1001/jama.1994.03520220043029

Taquette, S. R., & Monteiro, D. (2019). Causes and consequences of adolescent dating violence: A systematic review. *Journal of Injury & Violence Research*, *11*(2), 137–147. https://doi.org/10.5249/jivr.v11i2.1061

Turner, R. J., & Lloyd, D. A. (2004). Stress burden and the lifetime incidence of psychiatric disorder in young adults: Racial and ethnic contrasts. *Archives of General Psychiatry*, *61*(5), 481–488. https://doi.org/10.1001/archpsyc.61.5.481

Trust for the Citizen Competitiveness and Security (FICOSEC). (2019). *Encuesta sobre prevalencia de violencia familiar y sexual en el estado de Chihuahua [Survey on the Prevalence of Family and Sexual Violence in the State of Chihuahua]*. http://observatoriochihuahua.org/productos/encuesta-sobre-prevalencia-de-violencia-familiar-y-sexual/

United Nations International Children's Emergency Fund. (2014). *Ending violence against children: Six strategies for action*. https://www.unicef.org/publications/files/Ending_Violence_Against_Children_Six_strategies_for_action_EN_9_Oct_2014.pdf

United Nations International Children's Emergency Fund. (2017). *Preventing and responding to violence against children and adolescents: Theory of change*. https://www.unicef.org/media/83206/file/Violence-Against-Children-ToC.pdf

United Nations International Children's Emergency Fund. (2020). *Sexual violence against children*. https://www.unicef.org/protection/sexual-violence-against-children

United Nations Office on Drugs and Crime. (2019). *Victims of intentional homicide, 1990-2018*. https://dataunodc.un.org/content/data/homicide/homicide-rate

Valadez, B. (2020, November 9). Entre 2018 y 2019, más de 895 mil adolescentes en México intentaron quitarse la vida: Encuesta [Between 2018 and 2019, more than 895 thousand adolescents in Mexico tried to kill themselves: survey]. *Milenio*. https://www.milenio.com/politica/ensanut-895-mil-adolescentes-mexico-quisieron-suicidarse

Valdez-Santiago, R., Híjar-Medina, M. C., Salgado, V. N., Rivera-Rivera, L., Avila-Burgos, L., & Rojas, R. (2006). Escala de violencia e índice de severidad: Una propuesta metodológica para medir la violencia de pareja en mujeres mexicanas [Violence scale and severity index: A methodological proposal to measure intimate partner violence in Mexican women]. *Salud Pública de México*, *48*(2), 221-231. https://doi.org/10.1590/s0036-36342006000800002

World Health Organization. (2002). World report on violence and health. https://www.who.int/violence_injury_prevention/violence/world_report/chapters/en/

World Health Organization. (2014). Mental health matters: Social inclusion of youth with mental conditions. https://www.un.org/esa/socdev/documents/youth/youth-mental-health.pdf

World Health Organization. (2017). Depression and other common mental disorders: Global estimates. https://apps.who.int/iris/bitstream/handle/10665/254610/WHO-MSD-MER-2017.2-eng.pdf

World Health Organization. (2020). Global status report on preventing violence against children 2020. https://www.unicef.org/media/70731/file/Global-status-report-on-preventing-violence-against-children-2020.pdf

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