

Modeling Violence Among and Against University Students in a Mexican Medium-Sized City

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Violence against university students and among them is analyzed on campus and the household as well as the relationships of violence between these two social spaces. The study was undertaken through an anonymous random survey in the two larger public universities in a Mexican medium-sized city. Overall violence and types of violence—verbal, psychological, sexual, and physical—were evaluated by sex and by universities; and the aggressors were identified. A students' concept of violence was built, considering causes of intimate-partner violence, violence in general and ethical judgment on gender violence. Finally, it was measured the relationships between violence on campus and in the household using bivariate statistical analysis. Findings indicate the main aggressors on campus are classmates and professors, whereas in the household are the mother, relatives together with the parents and relatives without the parents. On-campus, there were found statistically significant associations between professors-aggressors and students as victims of violence by sex. In the household, the bivariate analysis confirmed mothers as single aggressors and fathers exerting violence together with relatives against student-children; and direct relationships between on-campus (psychological and sexual violence) and domestic (physical and sexual violence).

Keywords: types of violence, violence by sex, aggressors, students' concept of violence

Introduction

The University of Mexico was created in 1551 under the rule of the Spanish crown and in accordance with

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the medieval model of the University of Salamanca and obtained the recognition of pontifical university in 1595 (Peset, 1985; Arredondo-López, 2007; Marsiske, 2006). Two additional universities were created in Mexico in the 16th century in the cities of Guadalajara and Mérida. Beyond Hispanic Americas, Harvard College was the first of its kind founded in 1634, but Brazil did not have any university up to the 20th century (González-González, 2010). However, the public university as a state project began in 1825 just after the War of Independence from Spain, and new universities were created during 1826-1832 in the states of Jalisco, Oaxaca, Chihuahua, Mexico, Tamaulipas, and Zacatecas under the name of Institutes of Sciences and Literary (Uribe-Salas & Cortés Zavala, 2006; Arredondo-López, 2007; Flores-Méndez, 2016). The concept of a public university with explicit social and economic goals emerged from the Mexican Revolution (1910-1920) (Lazarín-Miranda, 2009; Narro-Robles et al., 2009), although there were antecedents toward the last quarter of the 18th century during the reign of the Bourbons in Spain; in this period in Mexico, three science and arts institutions were created (Royal Academy of Fine Arts, Botanical Garden, and Royal Seminary of Mines) and these institutions are the antecedent of the Mexican model of public universities of the 1860s based on national schools of sciences and arts promoted by the Emperor Maximilian of Habsburg during the French occupation (Marsiske, 2006; Uribe-Salas & Cortés-Zavala, 2006). In the post-revolutionary times, the public university obtained the status of autonomous which refers to autonomous administrative and academic functions. Such a status was built through a public debate with the Mexican state. Thus, in 1917 the University of Michoacán at San Nicolás Hidalgo was the first in obtaining this status, in 1923 the University of San Luis Potosí reached it, and the National University of Mexico (UNAM), with the heavy burden of a centuries-old tradition as a royal and pontifical university, had to go a long way between 1929 and 1945 to obtain the complete status of autonomous, in South America, the University of Cordoba in Argentina also obtained such status in 1918 (Marsiske, 2006; Olvera García et al., 2009; Narro-Robles, et al., 2009). These facts were the landmark that transformed all the public universities and institutes in the states of the Federal Republic of Mexico into autonomous universities; thus, the Institute of Sciences and Arts of Oaxaca created in 1826 became the Benito Juárez Autonomous University of Oaxaca in 1955 (Lempérière, 1994). There are other types of public universities such as the National Polytechnical Institute (IPN) created in 1936 in Mexico City and the Technological Institutes whose first two campuses were found in 1948 in the states of Chihuahua and Durango (Ruiz-Larraguivel, 2011). Public universities still have a characteristic inherited from colonial times: the concentration of the great and largest public universities in Mexico City (UNAM, IPN, and Autonomous Metropolitan University); nevertheless, the Independence War induced the deconcentrating of universities in the federal states. The Technological Institutes are state-technical universities with federal funding and centralized administration. At the beginning of the 1990s and of the XXI century, the model of technical universities was diversified because new kinds of universities were created, i.e., state technological institutes, technological universities, and polytechnical universities which are funded in equal parts by the federal government through the Ministry of Public Education (SEP) and the government of the federated states (Ruiz-Larraguivel, 2011).

The public university in Mexico has three major roles: (1) After the Mexican Revolution it became almost the only viable strategy of social mobility for low-income people; (2) since the second half of the 1930s the post-revolutionary Mexican State enlarged the functions of the public university to participate in the economic development of the country; therefore, it was necessary to create new universities specialized in engineering

such as IPN and the Technological Institutes; and (3) the National Council of Science and Technology (CONACyT), founded in 1970, added to the public universities an emphasis on being part of the solution of the country's social and economic problems and meeting technological needs (Arredondo-López, 2007; Lazarín-Miranda, 2009; Fabila Castillo, 2014; Olvera García, Piña Libien, & Mercado Maldonado, 2009; Narro-Robles et al., 2009; Ruiz-Larraguivel, 2011).

In this context, this article analyses violence among university students and against them and also the relation between violence against students on campus and in the household by means of two case studies. Two types of Mexican public universities are considered in the study carried out in Oaxaca City which is a medium-sized city. Although in 2017 there were 5,343 public and private schools offering university degrees to 3.6 million students spread out in the territory of the 32 federated states, Mexico is a country where 66% of her population is concentrated in 74 metropolitan areas (Islas, 2017; INEGI, 2018). Thus, most universities are concentrated in cities and the metropolitan area of Oaxaca City housing 678,270 inhabitants was not the exception (INEGI, 2018). This city, located in the central plateau of the state at 1,550 meters of altitude, plays the role of the central city in Oaxaca State (Reyes-Morales et al., 2001) because the state road system converges in it and there is a large concentration of the commerce, services, and financial institutions, including state government and federal government offices, public and private universities, and hospitals. Thus, thousands of students from hundreds of rural and urban localities in Oaxaca State territory come to study a university degree in the Benito Juárez Autonomous University of Oaxaca (UABJO) and the Technological Institute of Oaxaca (ITO) created in 1968 as means to reach middle class or better social status than their parents.

The article contains three main parts. First, the characterization of violence on both the university campus and the household is carried out. Second, a set of hypotheses are tested about violence in two units of analysis considering various cross-sectional variables. Third, the students' concept of violence is drawn from various sets of questions. Information was gathered through an anonymous random survey and analysis of data was carried out through descriptive and bivariate statistical analyses.

Methodology

The survey covered a random anonymous sample of 1,025 students, of which 46.8% are women and 53.2% men, from 16 bachelor's degree programs corresponding to ITO and UABJO in Oaxaca City. The ITO subsample represents 41.4% of the total; by sex, 38.4% are women and 61.6%, men; and all programs were covered through a Google mobile application. Taking into account the total sample of students, the average age and its standard deviation are 20.86 ± 2.53 years; the civil status is 94.6% single, 1.8% married, and 3.6% in free union. The UABJO subsample (58.6%) included students from the seven largest programs and students were interviewed person-to-person at the University City and in the faculty of medicine and surgery; and out of the subsample, 52.7% were women and 47.3, men. Quotas of the bachelor's degree programs surveyed by universities are: in ITO, civil engineering (7.6%), electrical engineering (4.0%), electronics engineering (3.2%), business management's engineering (5.6%), industrial engineering (3.8%), mechanical engineering (3.2%), chemical engineering (3.7%), computerized systems engineering (4.4%), and administration (5.9%); and in UABJO, architecture (8.9%), accounting (10.1), law (10.0%), nursing (10.2%), medicine and surgery (9.8%), chemistry (7.2%), and sociology (2.4%).

The survey questionnaire contains three kinds of questions: nominal whose answers have a dichotomous scale, i.e., yes = 1 and no = 0; categorical with four or more options to choose one; open and semi-open.

Questions are organized in these groups: (1) profile of the student (age, sex, civil status, bachelor's degree program, and the town where his or her household is located), (2) violence and aggressors in campus, (3) violence and aggressors in the household, and (4) students' violence conceptualization. Violence structure takes into account four types considering Galtung's contributions to violence theory (1969 and 2013) and the National Institute of Statistics and Geography's conceptualization of violence (INEGI, 2013): (1) verbal, (2) psychological, (3) physical, and (4) sexual. On the campus, there were identified these aggressors: (1) classmates, (2) professors, (3) non-academic staff, and (4) the couple or spouse. In the household, the aggressors were (1) father, (2) mother, (3) children, (4) relatives, and stepfather and stepmother. The survey database was statistically analyzed in two units (university campus and household) and the cross-sectional variables are sex, universities, and aggressors. Descriptive statistics were used to build profiles and structure of violence, whereas the bivariate statistics include association measures whose approach is that of the proportional reduction in error measures (PRE) (Mehta & Patel, 2011; Norusis, 1993) which includes Goodman and Kruskal's Tau (Goodman & Kruskal, 1954) and Theil's coefficient of uncertainty (Theil, 1970).

Although the approach of this study is on personal violence, explicit elements are provided to the reader on gender and the historic participation of the Mexican state in the public university to extend the discussion to structural and cultural violence in a country with a large economy but with sharp unequal income distribution (Confortini, 2006 ; Vorobej, 2008 ; Dilts, 2012). The types of violence are defined according to Galtung (1969) and INEGI (2013, pp. 77-78):

Physical violence is evident due to damage caused by the aggressor to the victim's body—slight or serious—that varies from a pinch to death, and this aggression can even be carried out with objects. Sexual violence considers the aggressor physically attacks the victim, through demands to have some type of sexual relationship, and the most obvious expression is rape. Psychological violence is a subtle form of aggression not visible at first glance. It leaves important traces on the victim's psyche caused by insults, threats, jealousy, intimidation, humiliation, teasing, and isolation. Verbal violence is a form of psychological violence expressed through verbal direct aggression from the aggressor toward victims such as insults, threats, and humiliation. In fact, it represented a strategy to assure that concept of psychological violence was understood completely by the interviewees; in this manner, the authors intended to achieve better coverage of overall violence.

Characterization of Violence

Profile of University Students

In ITO there are more male students (61.6%) than female students (38.4%) because of its offer of nine bachelor's degree programs, there are eight engineering degrees and one of administration. The ITO programs are orientated to meet the demand of engineers and administrators of the national industries of manufactures, electrical, chemical, communications systems, and construction. This happens in an emerging country whose economy is competing against China, India, and Brazil for the American and European markets and for the flow of capital for investment from the rich industrialized nations. UABJO is the opposite; female students represent the majority (52.7%). This university provides professionals to the Oaxaca State labor market and the national industries of construction and services such as health and clinical analyses, small and medium-sized businesses, and education. There is almost no difference in the age of students in ITO and UABJO. The average age and its standard deviation in the former are 21.15 ± 2.10 years and in the latter 20.66 ± 2.82 years. The data by sex presented the same behavior in the two universities. In ITO students are enrolled nine semesters to

obtain a bachelor's degree and in UABJO there are also nine semesters and 10 in the faculty of medicine and surgery. The sample included students from the 1st to 10th semesters and a few part-time students registered in semesters beyond 10. Thus, the average number of semesters in the subsample of ITO was 6.23 ± 2.93 and in UABJO's subsample was 4.18 ± 2.66 . By sex there is a difference in the civil status; fewer male students are married (0.70%) than female students (2.9%) because the first prefer free union (4.6%) than the latter (2.5%).

Violence in Campus

In ITO the 25.7% of students receive overall violence, whereas in UABJO this figure goes up 31.9%. The predominant types of violence in these universities are verbal and psychological since sexual and physical violence are still low (Table 1). Violence against female students is greater, especially in the predominant types. There are contrasting figures in the two universities; i.e., in ITO it was not reported physical violence against female students, but sexual violence against them is higher (4.3%) than in UABJO (1.6%). It is important to understand the context in which the concept of these types of violence is constructed. In ITO most students are men and study bachelors' degrees in engineering whereas in UABJO students at medical, nursing, and sociology schools are more open mind in sexual matters and more familiar with physical violence against them from "porros", that is to say: Pseudo students who are part of power groups linked to political parties in some public universities (Ordorika, 2005). The most frequent aggressors for male students are their classmates and for female students their professors (Table 1). In ITO it was detected that violence coming from non-academic staff affects more female students and in UABJO there is no almost difference between violence exerted on male students and female students. Intimate-partner violence comes in the last position and affects more female students especially in ITO.

So far, violence on campus shows a complex image that contains minimum participation of intimate partner violence since most students are single and young. Sexual and physical violence still remain at low levels, while attention must be paid to verbal and psychological violence. Classmates and professors appear as the major aggressors. These indicators should call attention from the Ministry of Public Education (SEP) to regulate the violent behaviors of university personnel and students through norms. At this point, one of the reforms that Mexico needs to control violence in the public universities must be based on a new social agreement with highly empowered trade-unions of academic and non-academic university personal. Public universities represent almost the only way to escape from poverty for around half of the total households and to form human capital for national economic development (Attanasio and Székely, 1998; Attanasio, Székely, et al., 2011). The social agreement is also a condition to impulse economic growth and to reduce drastically poverty and social inequality; and it may be politically viable for the current Mexican government which has the support of most Mexican people (Camberos-Castro & Bracamontes-Nevarez, 2018; Moreno-Brid & Gallagher, 2020).

Table 1

Types of Violence Against Students by Sex and Their Aggressors in the Main Universities in Oaxaca City, 2019

	ITO			UABJO		
	Female	Male	Total	Female	Male	Total
Verbal violence	17.80%	14.90%	16.00%	18.60%	16.90%	17.80%
Psychological violence	7.40%	6.10%	6.60%	11.70%	10.20%	11.00%
Sexual violence	4.30%	0.40%	1.90%	1.60%	1.80%	1.70%
Physical violence	0.00%	1.90%	1.20%	1.30%	1.80%	1.50%

No violence	70.60%	76.60%	74.30%	66.90%	69.40%	68.10%
Aggressors						
Classmates-aggressors	9.20%	13.40%	11.80%	14.80%	16.40%	15.60%
Professors-aggressors	12.90%	6.90%	9.20%	13.50%	9.60%	11.65%
Non-academic staff	4.20%	2.70%	3.30%	3.40%	3.50%	3.40%
The couple or spouse	3.10%	0.80%	1.70%	3.10%	2.80%	2.95%
No violence	70.60%	76.20%	74.10%	65.00%	68.00%	66.40%

Violence in the Households

Violence in the universities appears to have its origin in the households of the students as it can be seen by comparing outcomes from the survey (Tables 1 and 2). ITO students receive approximately the same amount of overall violence on campus than in their households and for UABJO students the domestic violence is superior. Domestic verbal violence comes first in these universities and has greater effects on ITO male students whereas in UABJO the opposite situation is present. Domestic physical violence surpasses campus psychological violence and presents the same behavior by sex as domestic verbal violence. In ITO domestic sexual violence against female students is lower than it does on campus, whereas in UABJO it is greater. This study did not include interviews in the students' households; hence, the information available is just that provided by students and further outcomes can be driven through bivariate analysis.

There were identified five common aggressors in ITO and UABJO (Table 2). In ITO the father and relatives have greater weight than the mother, brothers and sisters. In both universities, the hated figures from the stepfather and stepmother tales play a minimal role. In UABJO it emerges another aggressor, which combines the participation of parents and neighbors, and it adds the complex figure of father and mother together with neighbors exerting violence against their children. This outcome shows to a certain extent the bias in pointing out either father or mother as a single aggressor and, in some way, it is a contribution of UABJO students with a background in medical and social sciences. Hence, violence within the household can even come from neighborhood aggressors. In the next section, other combinations of aggressors will be discussed using measures of association.

Table 2

Types of Violence Against Students in Their Households by Sex and University, Oaxaca City, 2019

	ITO			UABJO		
	Female	Male	Total	Female	Male	Total
Verbal violence	11.00%	12.30%	11.80%	19.20%	16.50%	18.00%
Physical violence	7.40%	9.60%	8.70%	10.10%	7.40%	8.80%
Psychological violence	5.50%	4.60%	5.00%	6.90%	10.60%	8.70%
Sexual violence	1.20%	0.00%	0.50%	2.20%	0.70%	1.50%
No violence	74.80%	73.60%	74.10%	61.50%	64.80%	63.10%
Aggressors at the household						
Father	6.70%	12.30%	10.10%	7.60%	8.10%	7.87%
Relatives	8.00%	10.30%	9.40%	4.40%	1.90%	3.50%
Mother	6.10%	5.70%	5.90%	14.20%	13.70%	14.00%
Brothers and sisters	7.40%	4.20%	5.40%	8.20%	7.00%	7.70%
Stepfather and stepmother	0.60%	1.50%	1.20%	1.30%	3.20%	2.20%
Parents and neighbors				2.50%	2.80%	2.30%
No violence	71.20%	65.90%	67.90%	61.80%	63.40%	62.60%

Students' Concept of Violence

The survey allows obtaining the students' concept of violence since its causes, effects, and ethical judgment on whether violence against women must be punished or violence against men. For causes of violence, overall violence and intimate-partner violence were analyzed through open and semi-open questions. Table 3 shows the causes identified; for the first, causes are more clearly defined, partly because young students can see violence from their own experience and by means of life stories told by their parents, relatives, and neighbors, and partly because there is more objectivity being an observer than being an actor. When students evaluate intimate-partner violence, they face two problems; one is the lack of experience living as a married couple or in free union according to survey information on civil status, and, the other is the lack of objectivity to carry out the self-evaluation. This is reflected in answers for this kind of violence in Table 3 where appears the heading "all of the above together". Students face doubts pointing out causes with precision, so they add to their list of answers this heading, which embraces all answers as a strategy to include those missing (such as mistrust). A careful comparison between the answers to overall violence and those of intimate-partner violence allows withdrawing some conclusions. There are most coincidences than divergences as the only concept absent on the intimate partner violence side is mistrust. Other differences refer to a wider vision on the side of overall violence about addictions, machismo, and feminism. Addictions are normally associated with identity problems and search for new emotions and experiences among university students. Machismo and feminism in students can be a mirror of the struggle between fathers and mothers for control of the household. The effects of violence are discussed in the next section where students focus on emotional and academic performance effects.

It is worth reviewing the picture students keep in mind about campus violence. Survey also considers an open question on how violence on campus is, whose answers were grouped into six categories using semantical analysis, i.e., (1) insults, threats, offensive compliments ("piropos"), and humiliations (17.3%), (2) abuse of authority by teachers and non-academic staff (5.3%); (3) fights with blows (2.9%); (4) jealousy, friendship ban, and other forms of behavior control (2.8%); (5) forced retention in the classroom (1.1%); and (6) sexual abuse, attempted sexual abuse, sexual assault, and rape (0.9%). This information constitutes the students' concept of on-campus violence in which verbal and psychological violence have greater weight as it was reported in Tables 1 and 2. Verbal and sexual violence come from various aggressors; however, abuse of authority corresponds to professors and non-academic staff whereas psychological and physical violence occur among students.

Table 3

The Students' Point of View about Causes of Violent Behaviors and Intimate-Partner Violence

Overall violence		Intimate-partner violence	
	Percentage ^a		Percentage ^a
Jealousy	43.4	Jealousy	14.9
Lack of norms and values in the household	16.3	Lack of norms and values in the household	5.7
Lack of communication	9.8	Lack of communication	20.7
Addictions, lack of emotional control, low self-esteem and depression	7.6	Addictions	1.5
Mistrust	6.0		
Family problems.	5.1	Family problems	0.8
Traumas acquired in childhood	5.0	Traumas acquired in childhood	0.1
Machismo, feminism and struggle between parents for control of the household	4.7	Machismo and feminism	10.4
No violence	2.2		

All of the above together	46.0
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Note. ^a Due to rounding error, the total sum is not exactly 100%.

For ethical judgment, there was included the open question: Should violence against women or violence against men be punished? Thus, 92.5% of students interviewed declared that both types of violence must be punished. The 4.8% said only violence against women and 0.9% only violence against men. Even 1.9% of the interviewees answered neither of the two types of violence. The thought of this group implies that violence against both women and men is a part of the logic of the societal functioning that is Darwinist point of view. Almost everybody has a non-gender vision on overall violence and only 5.7% has a gender view. At the end of the Second World War, Simone de Beauvoir published her emblematic and influential book *The Second Sex* (2011) which set up the basis of the feminist movement in Europe and the United States. Felder writes on the history of women's empowerment in the United States and considers the intellectual influence of de Beauvoir's ideas on feminism (Felder, 2003). The feminist movement has underlined and overemphasized violence against women and in fact this type of violence has to be punished severely. However, students in public universities of Oaxaca City are more in the view that violence against both sexes must be punished because female students are not only victims but also aggressors and as Castro & Riquer (2003) stress, male students' view must also be considered. Surveys like this must be applied in public universities located in larger cities and metropolis to analyze gender violence in a wider context and considering other relevant aggressors, causes, and genesis.

Relationships Between Violence on University Campus and Domestic Violence

Violence against students in the universities is generated by various actors including students themselves and this violence can be a mirror of that violence generated within the students' households considering actors and parallelisms between types of violence. This statement must be tested through the following hypotheses using the survey database and proportional reduction error measures of association (Norusis, 1993, pp. 11-14; Mehta & Patel, 2011, pp. 192-195), i.e., Goodman and Kruskal Tau, uncertainty coefficient.

Hypothesis 1

The violence against students on campus proceeds from their classmates, professors, spouses, and couples, from non-academic staff; and it has differentiating effects by universities (ITO and UABJO) and by sex. To test this hypothesis and the others, types of violence, and aggressors were transformed into nominal variables. The cross-sectional variables sex and universities are nominal too. The measures Goodman and Kruskal Tau and the uncertainty coefficient were designed to analyze associations between pairs of nominal variables (Goodman & Kruskal, 1954; Theil, 1970). Table 4 shows the results for Hypothesis 1. The exact two-sided significance of the two measures for the relationship between classmates-aggressors and overall violence students receive in their universities is $p < 0.100$; i.e., PRE bivariate analysis indicates the confidence level of appearing classmates as the aggressor is 90% and other various aggressors together could have a higher probability of being aggressors. The two PRE bivariate measures support the relationship between professors-aggressors and students who are victims of violence even by sex having an exact significance of $p < 0.012$, which is universally accepted. Aggressors such as non-academic staff, spouses, or couples were not correlated significantly with student-children as victims of violence. Table 1 shows types of violence against students which make up the overall violence and the aggressors, but measures of association are necessary to confirm hypothetical statements. Consequently, Hypothesis 1 is not rejected on the basis of the relationships: (1)

classmates-aggressors and students who are victims of violence; and (2) professors-aggressors and students who are victims of violence, considering differentiating effects by sex. Thus, professors and classmates are confirmed as the principal aggressors of students on campus.

Hypothesis 2

The violence against students in their households proceeds from their father, mother, brothers, sisters, stepfather, stepmother, and other relatives; and it has differentiating effects on students by universities and by sex. Table 5 contains information about association measures on the relationships between household aggressors and student-children as victims of violence by universities. There was no found statistical significance on the relationship between household aggressors and violence against student-children who are victim of violence by sex. The two PRE-measures reported the exact significance of $p < 0.000$ for the relationships between household aggressors (mothers, relatives together with parents and relatives excluding parents as aggressors) and student-children who are victims of violence. This significance level eliminates doubts that these aggressors indeed are responsible for violence against the student-children. Mothers should not be considered villains because there is no empirical evidence available in that sense. Considering separately aggressors such as fathers, brothers, sisters, stepfather, and stepmother, it was not found association statistically significant between violence exerted from them and violence against student-children. Again, it was confirmed that stepfather and stepmother are no villains of history. Although fathers, brothers, and sisters appear in the first three places as aggressors (Table 2), the bivariate measures do not provide support to confirm them exerting overall violence separately (Table 4). Mothers are normally responsible for children's non-formal education and of the transmission of the family values and norms; for this reason, the image of the authoritarian mother can be recorded at an early age in the mind of the children. This theme is more frequently studied since the approach to domestic violence based on various disciplines such as sociology, psychology, and Marxism (Urzagasti-S., 2006), but especially resilience studies can explain children's responsiveness to domestic violence and how they can adapt to it and to develop a resilient personality, if at the same time, they can find support from their parents, relatives and friends (Amar-Amar, Kotliarenko, & Abello-Llanos, 2003). Mothers add to the total burden of their heavy domestic duties that of the children; hence, stress and tiredness may conduce to violent behaviors from time to time. Mothers that also work for a wage are overtired and overstressed and they may present violent behaviors against children most frequently. Theories of violence points out that punishments during childhood are a sort of a culture medium for adults' violence, although violence can be genetic or learned in society (Domenach et al., 1981; Montoya, 2006; Urzagasti-S., 2006).

Table 4

Association Analysis on campus Between Aggressors and Students, Between Aggressors and Students by Sex

		Value	Asymp. Std. Error	Aprox. T	Aprox. Sig.	Exact Significance
Goodman and Kruskal Tau	Students by universities Dependent	0.003	0.003		0.094	0.100
	Classmate-aggressor Dependent	0.003	0.003		0.094	0.100
	Symmetric	0.003	0.003	0.852	0.091	0.100
Uncertainty coefficient	Students by universities Dependent	0.002	0.002	0.852	0.091	0.100
	Classmate-aggressor Dependent	0.003	0.004	0.852	0.091	0.100
Goodman and Kruskal Tau	Students by sex Dependent	0.007	0.005		0.009	0.012
	Professor-aggressor Dependent	0.007	0.005		0.009	0.012
Uncertainty	Symmetric	0.006	0.005	1.314	0.009	0.012

coefficient	Students by sex Dependent	0.005	0.004	1.314	0.009	0.012
	Professor-aggressor Dependent	0.010	0.007	1.314	0.009	0.012

According to values of PRE association measures, other relatives excluding parents as aggressors means that brothers, sisters, uncles, aunts, grandfather, and grandmother participate together in the education of children and domestic duties. They abuse their role in the household to impose conduct standards on the children. This implies that fathers are excluded from violence exerted in the household against sons and daughters. However, this is not the case because the variable other relatives including parents are also significant and the interpretation is that fathers make a team with mothers and the relatives living in the household to exert some type of violence against their student-children. Thus, the bivariate analysis uncovered the father figure as an aggressor. This finding underlines the importance of this technique to obtain insights and findings beyond the descriptive analysis which can provide an inexact measure as the sample size varies. At the same time, the complexity of household violence is unveiled beyond considering separate aggressors.

Hypothesis 3

The types of violence students receive on campus are directly related to the same types of violence they receive in their households. This hypothesis was rather daring, and the statistical bivariate analysis provides evidence to accept it. PRE association measures applied to pairs of the same type of violence on campus and in the household evince that only the two types of sexual violence were statistically associated (correlated), for both Goodman and Kruskal Tau and uncertainty coefficient ($p < 0.001$) (Table 5). The second finding refers to the relationship between psychological violence on campus and domestic physical violence (Goodman and Kruskal Tau, $p < 0.033$; uncertainty coefficient, $p < 0.0533$). These outcomes provide evidence of the relationship of overall violence against students between campus and the household. Data indicates that on-campus sexual violence has its origin in the household, whereas domestic physical violence is the embryo of on-campus psychological violence. Normally the household is considered a source and receiver of norms, values, and beliefs from society, economy, and the national state. This work underlines role of the household as a source of violence. Scholars should pay more attention to the household as the genesis of violence for the analysis of violence in the schools, intimate-partner violence, gender violence, and overall violence. The public university plays—as seen before—important social roles in a country with high levels of poverty and social inequality (Camberos-Castro & Bracamontes-Nevarez, 2018) by means of human capital formation. In this sense, violence affects the institutional goals; hence, it deserves more attention in this article.

Table 5

Association Analysis Between Household Aggressors and Student-Children by Universities

		Value	Asymp. Stad. Error	Aprox. T	Aprox. Sig.	Exact Significance
Goodman and Kruskal Tau	Students by universities Dependent	0.016	0.007		0.000	0.000
	Mother-aggressor Dependent	0.016	0.007		0.000	0.000
	Symmetric	0.017	0.008	2.191	0.000	0.000
Uncertainty coefficient	Students by universities Dependent	0.013	0.006	2.191	0.000	0.000
	Mother-aggressor Dependent	0.026	0.011	2.191	0.000	0.000
	Symmetric	0.022	0.008		0.000	0.000
Goodman and Kruskal Tau	Students by universities Dependent	0.022	0.008		0.000	0.000
	Relatives-aggressors (excluding parents) Dependent	0.022	0.009		0.000	0.000
	Symmetric	0.024	0.01	2.374	0.000	0.000

coefficient	Students by universities Dependent	0.016	0.007	2.374	0.000	0.000
	Relatives-aggressors (excluding parents) Dependent	0.05	0.02	2.374	0.000	0.000
Goodman and Kruskal Tau	Students by universities Dependent	0.013	0.001		0.000	0.000
	Relatives-aggressors (including parents) Dependent	0.013	0.003		0.000	0.000
	Symmetric	0.025	0.005	4.237	0.000	0.000
Uncertainty coefficient	Students by universities Dependent	0.014	0.003	4.237	0.000	0.000
	Relatives-aggressors (including parents) Dependent	0.107	0.007	4.237	0.000	0.000

Table 6

Association Analysis with Students as Victims Between On-Campus Violence and Household Violence, Oaxaca City, 2019

		Value	Asymp. Stad. Error	Aprox. T	Aprox. Sig.	Exact Significance
Goodman and Kruskal Tau	On-campus psychological violence Dependent	0.005	0.005		0.025c	0.033
	Domestic physical violence Dependent	0.005	0.005		0.025c	0.033
	Symmetric	0.007	0.007	0.971	0.038e	0.053
Uncertainty coefficient	On-campus psychological violence Dependent	0.007	0.007	0.971	0.038e	0.053
	Domestic physical violence Dependent	0.007	0.007	0.971	0.038e	0.053
	Symmetric	0.007	0.007	0.971	0.038e	0.053
Goodman and Kruskal Tau	On-campus sexual violence Dependent	0.041	0.041		0.000c	0.001
	Domestic sexual violence Dependent	0.041	0.041		0.000c	0.001
	Symmetric	0.080	0.060	1.245	0.000e	0.001
Uncertainty coefficient	On-campus sexual violence Dependent	0.067	0.052	1.245	0.000e	0.001
	Domestic sexual violence Dependent	0.100	0.075	1.245	0.000e	0.001

Effects of Campus Violence on the Students

The survey included an open question about how campus violence affects the academic performance and the students' answers after a semantic analysis were: (1) It emotionally affects, 15.2%; (2) it reduces academic performance, 14.1%; (3) it affects concentration, 12.8%; (4) it reduces self-esteem, 6.1%; (5) it causes university dropout, 4.6%; (6) decreases motivation, 3.8%; (7) it causes depression, 3.5%; (8) it lowers grades, 3.5%; (9) it does not cause a significative effect, 13.3%; and (10) I do not suffer violence, 22.9%. The open question about overall violence through the total sample (1,025 students) provides a lower percentage of students receiving violence on campus (22.9%) than the close question bound to the four types of violence (29.4%). The explanation is related to those students who declared that violence does not affect them significantly. Many students responded that are affected by one of the four types of violence; however, overall violence may confuse them if his or her thoughts is slanted by physical or sexual violence. This means those who are not affected have either a high capacity of resilience against violence or are insensible to suffer violence. To separate this group of students into two subgroups requires of another study which corresponds to positive psychology and counseling psychology (Snyder & Lopez, 2002; Brown & Lent, 2008). Nevertheless, this finding shows another face of violence and victims. There are persons who receive violence and have the capacity to recover from its effects and continue his or her life with his or her duties and goals with a minimum

effect. There are other impassive persons insensible whose imperceptible reactions could be even pathological. Both cases should be studied not only to look for new superhumans and criminal minds for the next TV series but above all to unveil a little more of the human mind as Goleman (2006) did with the concept of emotional intelligence within the realm of positive psychology. According to students, overall violence causes more emotional effects (41.4%) than direct academic problems (22.2%); the former includes incisives: (1), (3), (4), (6) and (7), whereas the later: (2), (5), and (8). Emotional effects change positive moods into negative moods at least temporarily and even could produce changes in personality (Larsen & Prizmic, 2008; Diener, Lucas, & Scollon, 2006). The authors of this article experience suggest that academic problems have additional causes. The more common problems affecting the academic performance of students in Mexican public universities are (1) family problems, (2) those related to the separation of students from their households to live as couples and to have to earn money, and (3) lack of interest to study the current program. Campus violence very seldom is the major cause of university dropout and low grades. More frequently students abandon the university due to economic problems in their households or due to pregnancy problems. These problems also affect the academic performance of those who remain on campus. In the end, campus violence considering its effects on the psyche and academic performance of students has to be added to these three problems; therefore, these problems underlined must be controlled by university authorities and have to be taken into account by SEP and society.

Final Comments and Conclusions

The application the survey to university students on campus anonymously to evaluate violence against them and among them was a good strategy. The use of a mobile application worked out in the technical university because access to Internet was better but in the autonomous university with more administrative restrictions the questionnaire had to be administrated person-to-person. Anonymous survey allowed students to feel free to answer about violence against them, to identify their aggressors, and to talk about their conception of violence.

It was found students have various aggressors on campus and in their households; hence, they have not only to study, but also it is quite probable that they face violence pursuing a university degree. Verbal and psychological violence are the predominant types on campus and the household in both universities. Nevertheless, overall violence can be greater in the household. This descriptive information provided valuable insights which were confirmed through hypotheses on the relationships between violence on campus and violence in the household. Using proportional reduction in error measures of association (PRE), significant relationships were found between aggressors and violence exerted on university students on both campus and their households. On-campus, the *p*-value of PRE-measures for the relationships: classmates-aggressors against students and professors-aggressors against students, considering universities as a cross-sectional variable, was barely accepted for the former and it was universally accepted for the latter even by sex. In the household, there were significant associations (correlations) between students-children as victims and various aggressors (the mother, relatives excluding parents and relatives including parents), but it was not found any association with violence by sex. Furthermore, various significant associations between violence on campus and in the household were found, i.e., domestic psychological violence and campus physical violence, sexual violence on campus, and domestic sexual violence. Thus, bivariate analysis supported evidence about the household as the genesis of violence on campus; and it underlines the principal aggressors on campus and in the household. Finally, findings in the public universities in a middle-sized city that it must be underlined refer to the types of

violence students face. Gender violence and intimate-partner violence are not relevant in public universities, but attention must be focused on violence from classmates and professors on campus and the household as the genesis of violence. Bivariate analysis was a useful probabilistic tool to prove that fathers together with other household members are aggressors of the student-children. Above all, this study outlines a model to analyze on-campus and domestic violence against university students through descriptive and bivariate statistical analysis.

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