World Journal of Advanced Research and Reviews
eISSN: 2581-9615 CODEN (USA): WJARAI
Cross Ref DOI: 10.30574/wjarr
Journal homepage: https://wjarr.com/

(RESEARCH ARTICLE)

Check for updates

Prevalence of gender-based violence in university nursing students: Multi-centric Mexican study

Torres Lagunas María de los Ángeles [1,*], Vega Morales Elsy Guadalupe [2], Cortés Escarcega Irma [3], Pagola López Laura Yolanda [4], Arenas Montaño Guillermina [5] and Ávila Lara Magdalena [1]

[1] *National School of Nursing and Obstetrics, National Autonomous University of Mexico, Mexico City, Mexico.*
[2] *Yucatan Health Services, Merida, Yucatan, Mexico.*
[3] *Faculty of Higher Studies Zaragoza, National Autonomous University of Mexico, Mexico.*
[4] *Higher School of Nursing and Obstetrics, National Polytechnic Institute, Mexico City, Mexico.*
[5] *Faculty of Higher Studies Iztacala, National Autonomous University of Mexico, Mexico City, Mexico.*

World Journal of Advanced Research and Reviews, 2022, 16(03), 149–160

Publication history: Received on 10 October 2022; revised on 25 November 2022; accepted on 28 November 2022

Article DOI: https://doi.org/10.30574/wjarr.2022.16.3.1215

Abstract

Introduction. This study provides crucial information from seven Mexican educational institutions about the experience of gender violence experienced by nursing students during their university education that has not been emphasized in the Mexican scientific literature. Its purpose is to develop an educational strategy to prevent violence in nursing.

Objective: To compare the prevalence of gender violence and its characteristics, experienced in the university environment by nursing students from seven Mexican educational entities.

Method: Cross-sectional quantitative design, based on the construction and validation of a multidimensional content instrument to measure perception, attitudes, knowledge, and gender-based violence in nursing university students in Mexico that was self-administered online. The 1345 sample was calculated with a confidence level of 0.95% and a probability of 0.5%. The selection was by non-probabilistic convenience sampling. The data were processed in SPSS-21 statistical software and analyzed using descriptive statistics. Informed consent was requested for risks, benefits, and data protection. Approved by the research and ethics committees of the various universities.

Results: The prevalence of gender violence in university nursing students is moderately high (49.3%) with high typologies. Physical (76.7%) and sexual violence (64.61%) predominated. Violence is experienced both in the classroom and in clinical practices, with college colleagues being the main perpetrators, especially affecting the emotional health of the victims: stress, depression, anguish, and low self-esteem. By educational institution, the highest prevalence level was obtained by the UADY, 61.05%, followed by the FESZ, 53.13%, and the UV, 51.22%. There is a lack of knowledge among the students of the presence of a department that provides services, 73.5%, and of the protocol for the care of gender violence, 64%.

Discussion. Consistency was found in the results of this study regarding the high prevalence of gender violence in the international context. As is the high persistence of sexual violence, as is the case of nursing students in Taiwan, Nigeria, Brazil, and Ecuador, perhaps due to the common denominator of the highest percentage of female students, which shows that a good percentage of Nursing student women in different spaces and moments have gone through an act of sexual assault or harassment.

* Corresponding author: Torres Lagunas María de los Ángeles
National School of Nursing and Obstetrics, National Autonomous University of Mexico, Mexico City, Mexico.

Conclusion. In general, the prevalence of gender-based violence in Mexican nursing schools is moderately high with high typologies. Future research should provide strategies to counteract this problem. The universities must propose policies and legislation also in the clinical environments of the students.

Keywords: Prevalence; Nursing students; Gender-based violence; Multicenter Study

1. Introduction

The recognition of gender violence as an attack on human rights, a social and public health problem at the international level, commits the educational sector in health sciences to take measures to address it. Despite the great changes that have occurred in nursing education, the problem of gender violence persists both in clinical settings and in educational settings, and health care where nursing students play a fundamental role in the response of the health sector to identify it, manage the threat and prevent it [1].

Violence is a complex and multicausal phenomenon that breaks harmonious relations in schools and causes damage to the school community. Nursing students are the most vulnerable to all types of violence, both vertical and horizontal since they face bullies in the classroom, they have to deal with their peers, and during clinical practice, they are under the guidelines of the faculty who supervise their rotations and that to a certain extent can hinder their learning [1,2]. Associated with this, they are observed and influenced by nurses and other members of the care team, they also experience staff shortages, increased workload, and inadequate supervision. Together with everything, there is an imbalance of power between students, their faculty members, and the health team, therefore, they cannot file a formal complaint to defend their rights against their perpetrators for fear of consequences, which favors an unhealthy and highly stressful environment that affects all spheres of life: physical, social, emotional and family [2,3,4]. All these behaviors also compromise the patient's well being, and safety and are life-threatening in the clinical environment [4,5].

1.1. Concepts

Gender-based violence (GBV) from various theoretical approaches "is that which may result in physical, sexual or psychological harm, including threats of such acts, coercion or arbitrary deprivation of liberty, whether they occur in public or private life" [6]. In Mexico, it is defined as “any action or omission, based on gender, that causes psychological, physical, patrimonial, economic, sexual harm or suffering or death to any woman, both in the private and public spheres” [7]. For nursing students, GBV has a negative connotation: cowardice, lack of respect, pain, sadness, and physical violence [8], a consequence of biological fatality and a private matter [9].

Gender-based violence can be of various types: Physical, involves aggression that attacks a person's body, either through blows, throwing objects, shaking, or squeezing, among other behaviors that can cause physical damage. Psychological or emotional, it involves action or omission intended to degrade or control the actions, behaviors, beliefs, and decisions of other people through intimidation, manipulation, threat, humiliation, isolation, or any behavior that implies a detriment to psychological health. Sexual involves intercourse or sexual acts, physical or verbal, not desired or accepted by the other person. It uses force or physical or psychological coercion or any other mechanism that annuls or limits personal will. Economic occurs when money is used as a factor to dominate or establish harmful power relations [10]. Environmental, cited by the authors when there are inappropriate behaviors in the context that put people at risk and may or may not cause direct or collateral damage, such as the consumption of toxic substances such as alcohol, drugs, group fights, carrying weapons such as knives, pocketknives, gun or any sharp object. Behaviors that also put the prestige of the institution at risk.

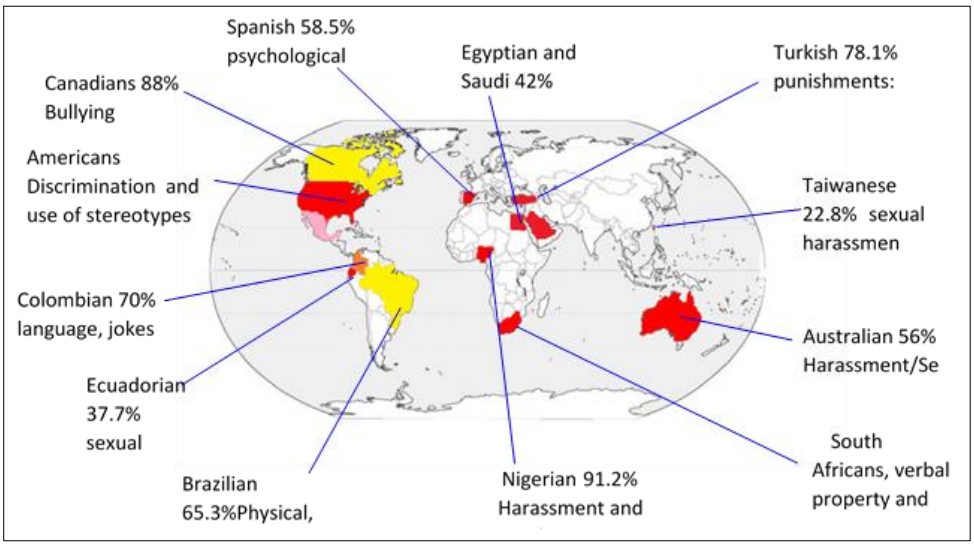
1.2. School violence

School violence in students, teachers, and others that arises in educational facilities, consists of carrying out inappropriate, deliberate, and consistent practices by the aggressor. It includes all those subtle ways that promote, overlap, or simply minimize any form of negative behavior to the detriment of the most vulnerable, which may or may not result in harm. For example, physically or psychologically mistreat, discriminate, abuse, harass, dominate, intimidate or threaten, disrespect, use sexist language, harass or sexually harass. School violence is part of the daily life of educational institutions [11] and seems to be a necessary evil for the education of students. Numerous studies have examined, described, and contributed scientific knowledge of the customs of violence in university settings and nursing clinical settings to strengthen care practice [4]. Among the most frequent naturalized behaviors experienced by nursing, including university students, are rudeness, showing anger and hostility, ignoring, isolating, ridiculing, providing inferior treatment, spreading rumors, denying learning opportunities, shaming, excluding, yelling, criticizing, humiliating, assigning tasks below the level of competence, touching, hugging or kissing without the consent of the other

person, encouraging inappropriately, attempting rape, expressing compliments, making obscene gestures, actions with sexist language, etc. [1,2,4, 5,12-18].

1.3. Panorama of the prevalence of gender violence in nursing students

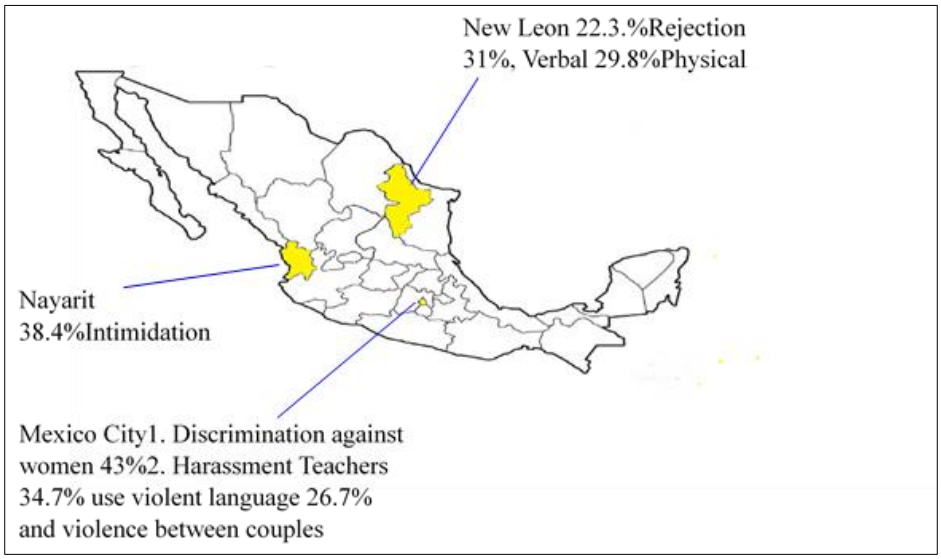
GBV in college nursing students is a problem that involves many young people as victims, harassers, or bystanders. In the international context, the review of the scientific literature demonstrates the existence of a high prevalence of gender-based violence during nursing training, which can be exercised even by the students themselves, nursing managers and clinicians, medical and administrative staff, faculty, peers, patients, and relatives. For example, Italians have experienced at least one occasion of violence in the clinical setting, and Canadians have been harassed at least once. Rude, sarcastic, disrespectful, and degrading treatment is acquired in the United States. American students also reveal discrimination, social isolation, and the use of stereotypes [19]. In the male sex, areas of discomfort are identified in the educational environment, specifically when practicing clinical skills with female colleagues, feeling pressured to volunteer and expose skin during demonstrations in class, and being excluded from certain clinics [20]. Spaniards mainly tolerate psychological (71.0%), physical (41.2%), sexual abuse (3.2%) and economic (2.5%) violence [9]. Australian students report having especially suffered harassment, and bullying [21], and more than (56%) of nursing students experienced some type of non-physical violence in the clinical environment [22]. Nigerian schoolgirls (78% of women) perceived sexual harassment as a common practice, (58%) had been sexually harassed (46.4% women) [18]. In the case of men, it is common to experience discrimination due to their gender [23]. Colombian students refer to at least one event of discrimination or violence during their university life, (67.7%) [14]. In the same way, symbolic gender violence prevails (70%), with behaviors easily made invisible with language, the hierarchies that are established daily in interpersonal relations, labor relations, and jokes [15]. In Brazilians, physical aggression is common at (41.7%), sexual harassment at (23%) and sexual abuse at (30.8%), with the vulnerability of lesbians, bisexuals, Christians, or evangelicals [24]. In Turkish, pejorative statements about the nursing profession stood out (11.3%); low grades (9.9%) are used as punishment; tasks and job rotation (9.4%); impossible workloads (9.0%), the spread of rumors and gossip [25]. Qualitative findings indicate that both in clinical and academic contexts, bullying varies from rudeness to physical attacks [4]. In the South African environment, behaviors of verbal abuse, property violence, personal space, and different treatment prevail [26]. A review of the literature in Saudi Arabia and Cairo shows that there are threatening behaviors, the most frequent, unmanageable workload to unrealistic deadlines (16.7%), negative and derogatory comments about the profession (15.6%), reassignment of tasks, work, or responsibilities, rotation of place as punishment for educational purposes (13.9%), demeaning or humiliating behavior and exclusion (11.7%) [3]. Students from Ecuador and Taiwan presented medium prevalence. Physical violence stands out among Ecuadorians, (22%), the group of 17-19 years was more vulnerable. Men experienced more violence [13]. Likewise, frequent sexual harassment of women was demonstrated, the perpetrators were the partners themselves, and the vulnerable population was in the initial and intermediate semesters, in mestizos, indigenous, Afro-descendants of the middle and lower middle class, foreign and homosexual [16]. More than a fifth of Taiwanese women were frequently sexually harassed in the clinical area [27] (Figure 1).



Source: Prepared by the author Vega ME, August 2022

Figure 1 Gender Violence in Nursing Students in the International Context

In the Mexican environment, six research studies support the exercise of violence in nursing students at the high school level. For example, in Cd, Mexico, there is harassment and use of violent language, (26.7%) by teachers. Violence between couples is also very frequent, (39.5%) with control of freedom through telephone calls. The most vulnerable students were found in the sixth semester [11]. Another study shows the existence of discrimination and inequality by gender, men are aware that they are socially favored, not only on the university campus but in the workplace, (67%) [28]. In another environment, violence is accredited in students at least once in their university life, (12%). It also refers to sexual harassment in the hospital field, which is much more frequent in the first semesters of the degree [29]. A high rate is also shown in technical violence, mainly due to detachment (73.3%) and coercion (66.3%). One in 5 students suffer physical violence (18.3%). Students (9.0%) declared having been mistreated, a perception related to the overall proportion of students who felt trapped (31.7%), fearful (13.8%), and with a greater delay in breaking up the relationship [30, 31]. In Nuevo León, there is evidence of social rejection, verbal and physical violence, and intimidation, mainly in women under 20 years of age [12]. In Nayarit, episodes of abuse in the classroom are reported, mainly rejection, (35.4%); intimidation, (28.75%), public humiliation, (16.3%); completion of tasks, (16.3%); verbal violence, (28%); sexual harassment, (8.3%), and physical aggression, (0.8%) [32] (Figure 2).



Source: Prepared by the author Vega ME, August 2022.

Figure 2 Gender Violence in Nursing Students in the Mexican National Context

1.4. Characterization of gender violence in nursing students

Aspects of personal and environmental behavior. Among the predisposing risk factors for environmental violence is the abuse of toxic substances [33], seduction (55.2%) and peer influence (56.0%), hospital facilities (28.2%), reading rooms (20.0%) and classrooms (17.2%), as well as having quite negative, permissive, intolerant (homophobic-prejudice), cultural (religious) [34] attitudes and lack of knowledge [9,18]. Gender and educational level are cataloged as significant predictors of attitudes toward violence [35]. Attending parties (26.8%) and wearing tempting dresses were associated with sexual harassment [18].

1.5. Victim profile

Mestizo, indigenous, Afro-descendant middle and lower-middle-class women tend to be more vulnerable to gender violence; those of heterosexual, bisexual, and homosexual orientation, initial and intermediate semesters (37-74%), migrants (7 out of 10) present the highest rates of violence including bullying and harassment (4 out of 10 women) [16] among other characteristics are race black [14]. As the level of study and age increases, all types of harassment suffered and violence increase [2].

1.6. Perpetrator profile

The perpetrators of bullying both in the educational and clinical settings have variable traits and are not well defined. A review indicates that they can be classmates (41.1%), nurses (39.4%), clinical instructors (37.2%), patients (35%), and doctors (31.7%). They can also be people older than the victims, stretcher-bearers (15%), male nurses (9%) [29], registered nurses (56.6%), enrolled nurses (36.4%), clinical facilitators (25.9%), teachers (24.6%), nursing managers

(22.8%), and other nursing students (11.8%) [14,21]. The main harassers of men are female colleagues (44.8%) and female patients (20.7%) [18, 26]. Likewise, women teachers and administrators are reported [16].

1.7. Effects of violence

Students who are affected by violence may experience anxiety (71.5%), and depression (53.6%) and negatively affect the standard of care (32.8%) [21,28] and learning [33]. Other adverse consequences experienced include hatred (80.8%), fear of a possible recurrence (74.8%), loss of concentration in academics (68.0%) [18], school dropout, engagement in violent behavior, and loss of creativity (when it is sexual) [36]. Likewise, it produces limitations in the clinical environment for learning, the absence of appropriate role models, feelings of isolation, little instruction on the appropriate use of touch, and unequal clinical opportunities (in the case of men) [23]. A Mexican study revealed that suffering technical violence is associated with a lower number of social support and low self-esteem [30]. Generates anger (80%), questions their choice of career (70%), critical sleep disorders and lack of tolerance (70%), panic attacks (40%), guilt (40%) feeling humiliation (30%) plan to leave the profession (20%) absenteeism (10%), loss of confidence (20%), affectation in their relationships with others (25%) [2]. Physiologically, they can experience somatic disorders that affect the immune system and increase the risk of hypertension, angina, fatigue, and other maladaptive responses to stress, which causes losses due to the direct costs of medical licenses, and the cost of hiring others. (25%) of harassed people quit and the replacement cost is $20,000 per nurse per year [2, 5]. Violence also negatively affects the work attitudes of nursing students [25], generates anguish, and undermines their perception of competence and a feeling of helplessness, exacerbated by the perception that a formal complaint can affect their grades or academic progress [4].

1.8. Nursing student strategies to counteract the violence

Students, not prepared to deal with violence and not having an immediate and effective support response system, have adopted coping strategies such as informing the school authority (72.0%), requesting the support of teachers (62.1%), and confrontation (55.2%) [18]. They have also used face-to-face confrontation with the harasser (70%), the complaint (58%), others used palliative means working hard (55%), taking refuge in friends (49%), consenting to violence (45%), using toxic substances (9%), behavioral instabilities (20%), maintaining a good student-nurse relationship (29%) [2]. They also used evasion, simply trying to "survive" and seeking the support of trusted academic staff, family and friends [4]. Not all of these tactics were effective in the face of the violence they endured [18]. There was no management by the school (32%), and the teachers did not help to deal with the violence (43%) [2].

From these references in the scientific literature, it is seen that the current educational reality in Mexico is that the exposure of nursing students to gender violence has not been sufficiently explored due to the scant evidence presented. The purpose of this study is to examine gender violence and its characteristics experienced in the university environment by nursing students in a comparative manner between seven Mexican educational entities: prevalence, types, perpetrators, spaces, and consequences that serve as the basis for developing an educational strategy to prevent gender violence in nursing.

Objective

To compare the prevalence of gender violence and its characteristics, experienced in the university environment by nursing students from seven Mexican educational entities.

2. Material and methods

Cross-sectional quantitative design. The sample was calculated from the sum of the student body enrolled in each educational institution. Simple random sampling was used for finite populations; confidence level 0.95% and probability 0.5%. The selection was by non-probabilistic convenience sampling. Participants were contacted through their group leaders, attendance lists, and enrollment number based on the inclusion criteria: student at Bachelor of Nursing level, enrolled in a participating University or School of Nursing, enrolled from 3rd to 10th semester, or are Interns in Social Service. To collect the information, the researchers built a multidimensional content instrument with high precision to measure the perception, attitudes, knowledge, and gender-based violence among nursing university students in Mexico. The tool consists of 3 sections and 86 questions. The first obtain identity data of the participant such as age, sex, gender, academic degree, educational institution, and the provision of an action protocol for violence and a department that provides services against violence. In the second section, 4 Likert-type scales are presented that measure perception, types of violence, attitudes, and knowledge, with 5 response options. The last section contains 5 complementary multiple-choice questions. The instrument was self-administered online in November 2021-January 2022. It was previously validated, obtaining high reliability (0.945) by Cronbach's Alpha. The authors systematized the form and method of application of the collection tool. Preliminary to the administration, informed consent was

requested from each participant through a free and voluntary invitation. He was informed of the objective of the project and aspects of his participation. Ethical principles were considered and we adjusted to the ethical standards of human experimentation, as well as risks, benefits, right to privacy and data protection, and the approval of the research and ethics committees of the various universities. The data was captured in Excel, processed, and analyzed using SPSS-21 software with the use of descriptive and inferential statistics: percentages, frequencies, means, and the chi-square test for associations.

3. Results

3.1. Characterization of the sample

Seven educational institutions participated with a total of 1,345 nursing students, of which the majority were from the intermediate school grade (73.3%). The UV had the highest frequency of students in initial grades, (49.5%), the ESEO intermediate grades, (98.9%), and UAM advanced levels, (40%). The average age was between 21-23 years, (50.4%), the educational instance with the highest percentage in this group was the Faculty of Nursing of the Autonomous University of Yucatán (FEUADY), (70.5%). The UV contributed with a high sample of students between 18-20 years old, (67.4%). Those over 24 were the minority group (10.4%). Most of the sample was composed of students who did not have a sentimental partner (57%). The UV was the school that favored this group with (65%). The FEUADY had the majority of participants with a partner, (50.5%). In terms of sex, the females prevailed; the highest percentage of males was contributed by the FEUADY (32%). The predominant gender was heterosexual (84%) followed by homosexual (11%) and bisexual (2.9%). The Autonomous Metropolitan University (UAM) had more heterosexual participants, the Faculty of Nursing of the Veracruzana University (FEUV) homosexuals (15%) and the FESZ bisexuals (3.38%). For the most part, the student body does not know or does not have a department that provides services for gender equality and violence prevention (73.5%). The UAM had the highest percentage of students (55%), which is aware of the existence of this department; the other institutions were below (30%). In the same way, it occurs with the existence of the protocol for the care of gender violence, the students are unaware of it or do not have the protocol (64%). The students of the FESI, UADY, and ESEO know the protocols, (67.14%, 66.32%, and 63.41%), respectively.

3.2. Prevalence

The general prevalence of gender violence in university nursing students was at a medium-high level of (49.36%) (Table 1). The highest level of violence was FEUADY, followed by FESZ and UV. The highest prevalence by type of violence and educational institution was physical, followed by sexual and economic (Table 1).

Table 1 General Prevalence and Type of Gender Violence by Educational Institution of Nursing

Institution	Level	Psico	Ambient	Sexual	Econom	Physical	General
ENEO N= 297	Low	90	108	73	87	33	89
		30.3%	36.3%	24.5%	29.2%	11.1%	29.9%
	Mean	100	109	36	46	39	66
		33.6%	36.7%	12.1%	15.4%	13.1%	22.2%
	High	107	80	188	164	225	142
		36.0%	26.9%	63.3%	55.2%	75.7%	47.8%
FESI N= 70	Low	18	16	15	18	7	14
		25.7%	22.8%	21.4%	25.7%	10.0%	20.0%
	Mean	23	30	11	10	5	26
		32.8%	42.8%	15.7%	14.2%	7.1%	37.1%
	High	29	24	44	42	58	30
		41.4%	34.2%	62.8%	60.0%	82.8%	42.8%
FEZ N= 384	Low	100	121	88	106	60	93
		26.0%	31.5%	22.9%	27.6%	15.6%	24.2%

	Mean	89	144	38	48	37	87
		23.1%	37.5%	9.9%	12.5%	9.6%	22.6%
	High	195	119	258	230	287	204
		50.7%	30.9%	67.1%	59.9%	74.7%	53.1%
UADY N= 95’	Low	24	20	12	15	3	19
		25.2%	21.0%	12.63	15.79	3.16	20.00
	Mean	33	40	8	14	6	18
		34.7%	42.1%	8.4%	14.7%	6.3%	18.9%
	High	38	35	75	66	86	58
		40.0%	36.8%	78.9%	69.4%	90.5%	61.0%
UV N= 123	Low	33	31	25	36	17	30
		26.8%	25.2%	20.3%	29.2%	13.8%	24.3%
	Mean	31	47	16	10	11	30
		25.2%	38.2%	13.0%	8.1%	8.9%	24.3%
	High	59	45	82	77	95	63
		47.9%	36.5%	66.6%	62.6%	77.2%	51.2%
ESEO N= 276	Low	93	80	77	85	40	80
		33.7%	28.9%	27.9%	30.8%	14.4%	28.9%
	Mean	75	110	38	40	34	65
		27.1%	39.8%	13.7%	14.4%	12.3%	23.5%
	High	108	86	161	151	202	131
		39.1%	31.1%	58.3%	54.7%	73.1%	47.4%
UAM N= 100	Low	29	35	30	37	18	29
		29.0%	35.0%	30.0%	37.0%	18.0%	29.0%
	Mean	32	48	15	17	19	29
		32.0%	48.0%	15.0%	17.0%	19.0%	29.0%
	High	39	17	55	46	63	42
		39.0%	17.0%	55.0%	46.0%	63.0%	42.0%

Source: PAPIIT Project online form IN 304521 UNAM-DGAPA, ENEO 124 "Educational intervention to prevent gender-based violence in nursing university students" March 2022.

The highest prevalence of physical violence in the school was obtained by FEUADY, followed by FESI and FEUV. The highest prevalence of sexual violence was obtained by FEUADY, followed by FESZ and UV (Table 2).

Table 2 General prevalence and type of gender-based violence in nursing

Level	Psico	Ambient	Sexual	Econom	Physical	General
Low	28.12	28.71	22.83	27.92	12.32	25.22
Mean	29.83	40.75	12.56	13.80	10.93	25.42
High	42.04	30.54	64.61	58.27	76.75	49.36

Source: PAPIIT Project online form IN 304521 UNAM-DGAPA, ENEO 124 "Educational intervention to prevent gender-based violence in nursing university students" n= 1345, March 2022.

Prevalence of GV in nursing students is HIGH, physical violence is practiced primarily, 76.7% followed by sexual violence, 64.6% and economic violence, 58.27%

3.3. Perpetrator profile

Violence occurs mainly horizontally since one's classmate, girlfriend, friend, or another student exercises it. Vertically, the main perpetrator is the professor, followed by the clinic nurse, the doctor, and the patient (Table 3).

Table 3 Perpetrator of Gender Violence in Nursing Students

Indicator	Percent
Classmate	29.0%
Professor	24.8%
Girlfriend	19.5%
Friend	18.1%
Another student	16.8%
Clinic Nurse	14.2%
Doctor	11.4%
Patient	10.4%

Source: PAPIIT Project online form IN 304521 UNAM-DGAPA, ENEO 124 "Educational intervention to prevent gender-based violence in nursing university students" n= 1345, March 2022.

3.4. Spaces

The space where violence is mostly practiced is in classrooms, followed by hospitals and clinical practice centers. Less frequently, violence occurs in green spaces and toilets, bathrooms, or WCs (Table 4).

Table 4 Most Frequent Spaces Where Gender Violence is Generated in Nursing Students

Indicator	Percent
Classrooms	38.2%
Hospitals	16.0%
Clinical practice centers	14.7%
Green areas	13.2%
Toilets	7.3%

Source: PAPIIT Project online form IN 304521 UNAM-DGAPA, ENEO 124 "Educational intervention to prevent gender-based violence in nursing university students" n= 1345, March 2022.

The level of Violence in Nursing Students is high 49.3%. They experience violence both in classrooms 38.2% and in clinical practices 30.7%, mainly by their partners or friends 37.6%, college colleagues 29% and teachers 24.8%.

3.5. Emotional and physical consequences

Violence can have serious consequences on the emotional and physical integrity and prevents the healthy development of the victims. Emotionally, stress is more frequent, followed by depression, anguish, fear and low self-esteem, isolation, lack of concentration, and feelings of hatred. On a smaller scale, weight gain, limited learning, suicidal thoughts, loss of sexual desire, and substance use. Frequent physical injuries such as headaches, and stomach problems as a result of psychological violence are also manifested as a product of violence. Cuts, ecchymosis, swellings, fractures, abrasions, subconjunctival hemorrhage, and tooth avulation are indicated (Table 5).

Table 5 Consequences of Gender Violence Exercised on Nursing Students

Indicator	Percentage
Stress	53.3%
Depression	36.2%
Distress	32.0%
Fear	31.7%
Low self-esteem	31.7%
Headache	28.8%
Isolation	25.4%
Lack of concentration	23.3%
Stomach problems	17.6%
Hatred	17.4%
Weight gain	11.8%
Learning limitation	11.3%
Suicidal thoughts	9.7%
Loss of sexual desire	9.6%
Substance use	5.8%

Source: PAPIIT Project online form IN 304521 UNAM-DGAPA, ENEO 124 "Educational intervention to prevent gender-based violence in nursing university students" n= 1345, March 2022.

4. Discussion

About the international and national context, there is consistency with the results of this study regarding the high and moderately high prevalence of gender violence with variable typology. Both in qualitative and quantitative studies, including this research, the predominance of the type of sexual violence is also demonstrated, perhaps due to the common denominator of the highest percentage of female and female students, which shows that a good percentage of this group of students have gone through an act of sexual assault or harassment in different spaces and times for the simple fact of being women [3, 4, 9, 14, 15, 18, 19, 21, 24, 25]. Likewise, similar effects were found in the study of the Taiwanese-Ecuadorian student body in question with the level of prevalence of gender violence, moderately high, primarily in the type of physical violence, in the group of young people aged 17-19 [13]. In this same research, the typology of sexual violence is also manifested as relevant and student colleagues or nursing are pointed out as the main perpetrators, which shows that they are not prepared to solve the various circumstances of violence. Other related and notable facts were the high frequency of violence in the intermediate semesters16, in the classrooms, and in the clinical area, as in the case of Nayarit [27].

Studies of schoolchildren from Spain, Turkey, Egypt, Colombia, the United States, and South Africa [3, 9, 14, 19, 25, 33] are an example of the diversity of results regarding the types of violence, they highlight psychological violence as the main. On the contrary, it occurs with a Mexican study where the high frequency of the typology of physical violence [30] is emphasized, a result equivalent to that of this research and where psychological violence obtained the last place in the order of appearance. This variability found, including the nursing schools studied, could be due to cultural and social factors or perhaps because in the psychological type the attitudinal sense is not present, although, in reality, it not only affects the emotional part but also the physical part of the student body with the presence of headaches and stomach problems caused by the stress resulting from this violence as referred to in this study.

Limitations

The time scheduled for the application of the instrument was a limitation due to the fact that the period had to be extended due to the impact of the COVID 19 pandemic and, due to the disease, it had to be contacted by email and other means when it was planned to make the invitation of face-to-face manner.

5. Conclusion

This study provides transcendental information on the prevalence of gender violence that exists in Mexican nursing schools and universities, which turned out to be moderately high and high in all its subtypes, a worrying situation that has little recognition among health professionals.

The study also includes dimensions and educational institutions that show us the globalization of this problem in university students. The data allow dimensioning the magnitude and characteristics of this problem, which are a point of reference for educational intervention strategies and their short-term effects. In the understanding that it is a multifactorial problem that is being identified in the university school environment, but in reality it is happening in other study spaces, it gives us guidelines to try to do something. The educational intervention strategy would be the first step, but Very surely others will have to be designed for the preventive approach that is of the utmost importance, but it will also have to think about working on the management of people who are going through the situation of violence from a multi and interdisciplinary approach.

In the same way, it is also shown that current strategies are not compatible for the prevention of violence in nursing schools and that it is not enough to have protocols on paper if they do not have good results for the eradication of intraprofessional educational and clinical violence. Therefore, educational, political and legal actions must be resignified, reconceptualized and restructured based on the reality that students live today regarding violence.

Considering that in Mexico there has not been enough research in this regard, it is of the utmost importance to carry out an exhaustive review of the international scientific literature to analyze the effectiveness of the interventions that have been made in this regard in nursing universities in order to be able to approach success this important public health problem that is relevant to the practice of students, both in the educational environment and in clinical learning.

It is important to remember that students have the right to care and be cared for. With the presence of violence in any of its typologies during their training, they become a user of health services and must be attended to because an issue that characterizes the nursing profession is "do no harm" hence the importance to educate students about gender violence that will serve to improve students' sensitivity, their preventive skills, coping skills, in itself, develop attitudes (respect, value people's decisions, opinions and preferences) that break with the vicious circle in which it reproduces. Prepare them to face the various situations of this problem that make them essential caregivers to prevent bullying, harassment or any type of gender violence, or just for the simple fact of wanting to help others and take the time to take care of themselves o to ask for help, report or use actions to prevent it within their family and school context; also to create teaching programs in order to strengthen care skills towards other caregivers.

Future research should provide strategies to counteract this problem starting in the college house. Universities should propose policies and laws and implement education related to gender violence not only in educational environments, but also in the clinical environments of students to build a better university community and an attractive society.

Compliance with ethical standards

Acknowledgments

Project PAPIIT IN 304521 UNAM-DGAPA ENEO No124 "Educational intervention to prevent gender violence in university nursing students".

Disclosure of conflict of interest

The authors declare no conflict of interest.

References

[1] Amoo SA, Menlah A, Garti I, Appiah E.O. Bullying in the clinical setting: Lived experiences of nursing students in the Central Region of Ghana. PLoS 2021; 16 (9): 1-16.

[2] Fernandez GL, Mosteiro DM. Bullying in nursing students: A integrative literature review International. Journal of Mental Health Nursing. 2021; 30 (4): 821-833.

[3] Abdelaziz EM, Abu-Snieneh HM. Impact of bullying on mental health and academic performance of nursing students. Perspect Psychiatr Care. 2022; 58 (2): 623-634.

[4] CourtneyPH, Pich J, Levett JT, Moxey A. "I was yelled at, intimidated and treated unfairly": Nursing students 'experiences of being bullied in clinical and academic settings. J Clin Nurs. 2018; 27 (5-6):pe903-e912.

[5] Rutherford DE, Gillespie GL, Smith CR. Interventions against bullying of prelicensure students and nursing professionals: An integrative review. Nurse Forum. 2019; 54(1): 84-90

[6] BIREME Descriptors of Health Sciences [internet] [Cited 04/12/2020]; Available at: https://bit.ly/3Kz4QjG

[7] General Law on Women's Access to a Life free of Violence [Internet]. 1st ed. Mexico: INMUJERES; 2007 [cited August 30, 2022]. Available at: https://bit.ly/3wJoJik

[8] Silva CD, Gomes VLO, Fonseca AD, Gomes MT, Arejano CB. Representation of domestic violence against women: comparison among nursing students. Rev. Gaúcha Enferm. 2018; 39:e63935.

[9] Macias SJ, Gil GE, Rodriguez GM, Gonzalez LJ, Gonzalez RM, Soler CA. Beliefs and attitudes toward Gender-Based Violence (GBV) in nursing students. Index Enferm. 2012; 21(1-2): 9-13.

[10] Royo M. Profamilia [Internet]. Colombia. [Quoted August 14, 2022]. Recovered from: https://bit.ly/3ABhiLh

[11] Robles MA; Arenas MG. Exploratory study on myths of gender violence in students of the FES Iztacala. alternate Psychol [Internet]. 2013 [Cited February 6, 2022]; 17(29):8-16. Available at: https://bit.ly/3KxmOTE

[12] Treviño M, De la Cruz M, Chavez G, Hauad I. Violence between peers on the campus of the medical area of the Autonomous University of Nuevo León. [Online] Monterrey: 1st. International Congress of Educational Research, Education, Society and Culture. "Violence in educational institutions" 2013 [Cited January 9, 2022]; p.1419-1433. Available at: https://bit.ly/3AwzxRT

[13] Lopez PS, Coromoto GL. Lopez PS, Coromoto GL. Gender violence in nursing students from the State University of Bolívar. Ecuador. RIEDELUZ [Internet]. 2021[Consulted January 5, 2022]; 11(2): 145-152.

[14] Moreno-CC, Sepulveda GL; Restrepo RL. Prevalence of violence and discrimination against women in the Faculty of Health Sciences, Universidad de Caldas, Colombia, 2010-2011. Rev Colomb Obstet Ginecol [Internet]. 2013 [Consulted January 7, 2022]; 64(1): 12-20

[15] Pinzon EC, Armas GR, Aponte VM, Useche MM. Perception of symbolic violence in university students. Amphora [Internet]. 2019[Consulted January 5, 2022]; 26(46).

[16] Altamirano ZG. Gender violence in university students: a look from social determination [Master in Epidemiology and Collective Health]. Quito: Simon Bolívar Andean University; 2020.

[17] Meires Jan. The Essentials: Nursing Faculty Who Bully Students and Colleagues. Urologic Nursing [Internet]. 2018; 38(6) 303-306.

[18] Omotosho IK. Sexual Harassment And Coping Strategies Among Students Of The School Of Nursing, University College Hospital, Ibadan [Master's Thesis]. Nigeria: Universidad De Ibadan; 2015.

[19] Kronsberg S, Bouret JR, Brett AL. Lived experiences of male nurses: Dire consequences for the nursing profession. Journal of Nursing Education and Pract. 2018; 8(1):46-53

[20] Anderson JA. Understanding Male Nursing Student Perceptions of the Influence of Gender: A Qualitative Case Study Approach of Students, Faculty, and Administration in a Pacific Northwest Nursing Program [Doctoral Thesis]. Portland: Portland State University; 2014.

[21] Budden LM, Birks M, Cant R, Bagley T, Park T. Australian nursing students' experience of bullying and/or harassment during clinical placement. Rev. Collegian. 2017; 24 (2):125-133.

[22] Hopkins M, Fetherston CM, Morrison P. Prevalence and characteristics of aggression and violence experienced by Western Australian nursing students during clinical practice. Contemporary Nurse. 2014;49 (1):113-121.

[23] Buthelezi SF, Fakude LP, Martin PD. Felicity MD. Clinical learning experiences of male nursing students in a Bachelor of Nursing program: Strategies to overcome challenges. Curationis. 2015; 38 (2):1-7.

[24] Csordas PDaSm; Hino P, De Oliveira RG, Fernandez H. Gender violence against woman nursing students: a cross-sectional study. Rev Bras Enferm [Internet]. 2021; 74(5): e20200539.

[25] Karatas H, Ozturk, C, Bektas M. A Study of Bullying Against Nursing Students. Journal of Nursing Research [Internet]. 2017; 25 (3):198-202.

[26] Engelbrecht, N, Heyns T, Coetzee, IM. Experiences of South African nursing students. Gender and behavior [Internet]. 2017 [Accessed January 22, 2022]; 15(1): 8492-8508.

[27] Chang TS, Tzeng YL, Teng YK. Sexual Harassment Experiences, Knowledge, and Coping Behaviors of Nursing Students in Taiwan During Clinical Practicum. Int. J. Environ. Res. Public Health [Internet]. 2020; 17, 4746.

[28] Robles MA, Arenas MG, Soriano VD. Perception of school violence in university students of the FES IZTACALA UNAM In: Mendez PA and Caballero VK. Current educational realities in middle and higher education. Approaches and interventions [Internet]. [Mexico]: Amapsi. 2021 [cited 2022 March 4]; p. 94-106. Available at: https://bit.ly/3CL3XCU

[29] Leonel AA, Hernandez FJ, Papaqui HJ, Roa PR, Perez CS. Magnitude of exposure to violence in nursing students in different settings [Internet]. México, D. F.: VI National Congress of Technology Applied to Health Sciences "Generation of new diagnostic and treatment techniques". 2015 [Cited January 9, 2022]; p. 1-10. Available at: https://bit.ly/3cA4lcs

[30] Garcia DV, Ana Fernandez F, Rodriguez DF, Lopez GM, Mosteiro DM, Lana PA. Gender violence in nursing students during their dating relationships. Rev. Primary Care [Internet]. 2013 [Consulted December 4, 2021]; 45(6): 290-296

[31] Villela RE, Arenas MG. Sexual harassment of nursing students during clinical practice: a gender perspective. Rev. Iberoamericana Hopscotch [Internet]. 2017 [Consulted December 14, 2021]; 41-45.

[32] Rios NB, Romero MS, Olivo EJ. The perception of mistreatment of Nayarit students in medical and nursing university careers. A first approach. Waxapa [Internet]. 2013[Consulted December 14, 2021]; 5(9):20-30

[33] Villiers T, Mayers PM, & Khalil D. Pre-registration nursing students' perceptions and experiences of violence in a nursing education institution in South Africa. Nurse Education in Practice. 2014; 14 (6): 666-673.

[34] Pöykkö M. Nursing students' attitudes toward sexual and gender minorities: A literature review [Bachelor's Tesis]. Finlandia: JAMK University of Applied Sciences; 2018. 46p.

[35] Camacho A. Correlational study of student nurse perceptions on intimate partner violence Northcentral University [Doctoral Thesis]. Arizona: Universidad Northcentral; 2015.

[36] Chitrali JA, Anwar M & Nabahat S. Dynamics of Gender-Based Violence: Investigating the Effects of Violence in Pakistani School on School Dropout and Loss of Creativity among Students. Pakistan Journal of Criminology. 2014; 6 (2): 133–45.