


# Mental Health and Quality of Life in Ecuadorian Women Exposed to Gender-Based Violence

Journal of Interpersonal Violence  
2024, Vol. 39(21-22) 4285–4306  
© The Author(s) 2024



Article reuse guidelines:  
sagepub.com/journals-permissions  
DOI: 10.1177/08862605241234357  
journals.sagepub.com/home/jiv



Alexandra Yakeline Meneses<sup>1</sup> ,  
Anabela Galárraga<sup>2</sup>, Ana Poenitz<sup>3</sup>,  
and Mercè Jodar<sup>4,5,6,7</sup>

## Abstract

Violence Against Women is a global problem that affects millions of women around the world. The main objective of this study was to evaluate the Mental Health and Quality of Life of Ecuadorian women exposed or not exposed to Gender Violence mediated by sociodemographic factors. A total of 433 Ecuadorian women, 18 to 64 years of age, most of whom (69%) reported being exposed to gender violence. Most of the women lived in the province of Pichincha and were selected through a type of nonprobabilistic sampling based on a survey about gender violence. Women exposed to gender violence showed a greater impact on personality profiles, clinical tests, and quality of life in the physical, psychological, social, and environmental domains compared to women not exposed to violence. In addition, these

<sup>1</sup>Escuela de Psicología y Educación. Universidad de Las Américas, Quito, Ecuador

<sup>2</sup>Universidad Técnica del Norte, Ibarra, Ecuador

<sup>3</sup>Universidad Tecnológica Israel, Quito, Ecuador

<sup>4</sup>Universitat Autònoma de Barcelona, Spain

<sup>5</sup>Institut d'Investigació e Innovació Parc Taulí, Sabadell, Spain

<sup>6</sup>CIBERSAM, Instituto de Salud Carlos III, Madrid, Spain

<sup>7</sup>Hospital Universitari Parc Taulí, Sabadell, Spain

## Corresponding Author:

Alexandra Yakeline Meneses, Escuela de Psicología y Educación, Universidad de Las Américas, Madrid y Valladolid, 170109, Quito, Ecuador.

Emails: jaquellinne@hotmail.es; alexandra.meneses@udla.edu.ec

effects were mediated by age, economic level, education, marital status, and exposure to physical violence and psychological or sexual abuse within the socio-family or work contexts. The results of this study could contribute to improving public health systems, showing improvements in care programs for victims of violence.

### **Keywords**

mental health, quality of life, gender-based violence, sociodemographic factors

### **Introduction**

Violence Against Women (VAW) is a pervasive global issue, affecting one in three women, leading to severe public health problems and human rights violations (WHO, 2021). This study focuses on the impact of gender-based violence on Ecuadorian women's mental health and quality of life, especially given the rising rates of violence in the country, including femicide (National Institute of Statistics and Censuses, 2019; State Attorney General's Office, 2021). The immediate physical consequences of violence include injuries such as broken bones and cuts, with long-term effects such as post-concussion syndrome (Oakley et al., 2021; Office on Women's Health OASH, 2017; Smirl et al., 2019). Additionally, mental health risks are prevalent, with increased vulnerability to conditions like depression, anxiety, and post-traumatic stress disorder (PTSD) (Ottisova et al., 2016; Hauw et al., 2020; Vallières et al., 2020).

The Ecological Model is employed to analyze the multifaceted aspects of VAW, encompassing sociodemographic, biological, genetic, and environmental factors (microsystem, meso/exosystem, and macrosystem). Factors such as cultural norms, beliefs, and community stigmas significantly impact victim recovery, while the chronosystem examines victim antecedents, sexual revictimization, and their implications on mental health (Blanco et al., 2021; Campbell & Wasco, 2005; Campbell et al., 2009). Empirical evidence confirms that women commonly experience posttraumatic stress, anxiety, and depression following violent events, with the victim's personality influencing their psychopathological response (Au et al., 2013; Khan et al., 1993; Morris & Bailey et al., 2020; Morris et al., 2020).

Health is intricately linked to quality of life, as defined by WHO, and involves social relationships, physical health, psychological health, and environment (WHO, 2020a, 2020b). VAW poses a significant threat to independence, health, and overall well-being, leading to social consequences such as isolation, discrimination, inequality, stigma, and rights violations, particularly pronounced among Ecuadorian women (Bauer et al., 2000; Murray

et al., 2021; Tejedor et al., 2021). Immigrant women often refrain from reporting violence and neglect healthcare due to fear of reprisals, adding psychological challenges like embarrassment, guilt, and fear of perpetuating violence (Apatinga et al., 2020; Kimberg et al., 2021; Shuman et al., 2016).

Challenges faced by abused women include a significant link between drug usage and coping mechanisms triggered by experiences of violence (Musayón et al., 2007). Women facing poverty are more prone to using psychoactive substances as a coping strategy for the mental and physical suffering associated with surviving violence, especially during stressful or violent life events (Rivas et al., 2019). Enduring abusive relationships in Jordan involves societal and cultural factors, financial dependence, lack of family support, pressure, childcare duties, and the societal consequences of divorce, contributing to the cycle of violence (Gharaibeh & Oweis, 2009; Walker, 1979; UN WOMEN, 2015).

Domestic violence disrupts society by eroding family structures, values, and the primary support network, prompting this study to assess the social well-being and quality of life of Ecuadorian women exposed or not to gender violence. The hypothesis suggests lower social well-being and quality of life in women experiencing violence, with variations based on age, education, economic status, and employment. The comprehensive examination of these interconnected factors contributes to a nuanced understanding of the intricate challenges posed by gender-based violence on the well-being of women in Ecuador.

## Methods

### *Participants*

A total of 433 Ecuadorian women between 18 and 64 years of age participated in the study, the majority of whom (69%) reported being exposed to gender violence. Most of the women lived in the province of Pichincha—Ecuador. According to the National Survey on Family Relationships and Gender VAW applied by the National Institute of Statistics and Censuses (2019), 37.8% of VAW was reported in the Province of Pichincha, ranking eighth among the 24 provinces in Ecuador. This province is strategically located north of Ecuador; its capital is Quito. Various cultures converge in this city, which is why it was considered a key space to study the issue of violence against Ecuadorian women. Twenty-five percent of the sample are domiciled in the rural sector, especially in the cantons of Cayambe and Pedro Moncayo, sectors that condense indigenous communities. The sample was selected by a type of nonprobabilistic sampling based on a survey about

gender violence, according to the guidelines of the Technical Standard on Gender Violence of the Ministry of Public Health of Ecuador (2019).

### **Procedures**

The design of the research study went through several review phases for its execution. First, the reviews and approval by the Committee of Ethics and Research with Human Beings of the Equinoctial Technological University of Ecuador, under series (040-CEISH-jcm), followed good practices and ethical regulations, according to the Declaration of Helsinki (WMA, 2022). Subsequently, the participating institutions, such as the research team of Israel University and health professionals of the Tabacundo Type C Health Center, provided assistance and monitoring. All the participants contacted signed informed consent forms and agreed to participate in the research. As part of guaranteeing the reliability and validity of the study results, inclusion and exclusion criteria were taken into account. The inclusion criteria were as follows: being Ecuadorian, (a) being 18 years of age or older, and (b) signing the informed consent form. The exclusion criteria were as follows: (a) A score less than 70 on The National Adult Reading Test NART (Nelson & Willison, 1991). This consideration was important because this study does not include groups of women with mental or intellectual disabilities; (b) History of acquired brain damage; (c) History of serious neurological or psychiatric illnesses; (d) History of toxic consumption habits; and (e) Presence of sensory alterations that would prevent performance of the tests.

### **Instruments**

*Survey on Gender Violence.* This instrument was provided by the Technical Standard for Comprehensive Care for Victims of Gender-Based Violence and Serious Human Rights Violations, issued by the Ministry of Public Health of Ecuador (2019). It allows collecting data associated with sociodemographic variables, age, gender, marital status, and economic status, as well as the type of reported violence and the time of exposure to violence.

*National Adult Reading Test NART* (Nelson & Willison, 1991), Spanish adaptation (Pluck et al., 2017). This is a test for reading unstressed words, which correlates with the intelligence quotient index of the WAIS intelligence test and allows estimating the level of intelligence quotient. The pre-morbid intelligence quotient is scored according to the direct form of 0/30; a score of 10 on NART equals 31 on WAIS-IV; and a score of 30 equals 136 on WAIS-IV. The purpose of this test in this study was to apply a brief analysis

to identify possible participants with intellectual deficits. Cronbach's alpha coefficient of validity is .84.

*Millon-IV Clinical Multiaxial Inventory (MCMI-IV)* (Millon et al., 2018). This is the most widely used instrument for the assessment of personality and psychopathology in adults. It consists of 12 scales that evaluate clinical personality patterns (Schizoid Avoidant, Melancholic, Dependent, Histrionic, Turbulent, Narcissistic, Antisocial, Sadistic, Compulsive, Negativistic, and Masochistic); three scales that evaluate severe personality pathology (Schizotypal Borderline Paranoid); seven scales that evaluate clinical syndromes (Generalized Anxiety Somatic Symptom Bipolar Spectrum Persistent Depression Alcohol Use Drug Use Post-Traumatic Stress); and three scales that evaluate severe clinical syndromes (Schizophrenic Spectrum, Major Depression, Delusional). It has 195 true or false items. The instrument is standardized and has a reliability coefficient ranging from .72 to .82. The pathological severity indicator scores considered were: 0 to 34 = none, 35 to 59 = low, 60 to 74 = suggestive, 75 to 84 = moderate  $\geq 85$  high.

*Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5)* (Blevins et al., 2015). It is an instrument updated to the DSM-V, to evaluate posttraumatic symptoms. Respondents indicate how much each posttraumatic symptom has disturbed them in the past week (as opposed to the past month), using a five-point scale ranging from 0 = not at all, 1 = a little, 2 = moderately, 3 = quite a bit, and 4 = extremely. It has 20 items. The cut point is 31 (this point means the presence of posttraumatic stress symptoms). The internal consistency (0.94).

*WHOQOL-BREF*—Spanish Colombian adaptation by Word Health Organization (2020a, 2020b). The WHOQOL-BREF measures quality of life across four domains (Physical Health, Psychological, Social Relationships, and Environment). It consists of 26 items which are rated using a Likert-type scale: very dissatisfied (a) Dissatisfied (b) Normal (c) Quite satisfied (d) Very satisfied (e). The measure is calculated by summing the point values for the questions corresponding to each domain and then transforming the scores to a 0 to 100-point interval, or alternatively, a 4 to 20-point. The internal consistency (0.70).

### **Statistical Analysis**

For data processing, Statistical Package for the Social Sciences for International Business Machines IBM-SPSS v24.0 and R Studio Desktop v3.6.2 were used. A descriptive analysis of the data was carried out to present the sociodemographic profile, reporting the mean and standard deviation. In addition, the difference between groups of sociodemographic variables was established by gender, years of schooling, employment, and type of violence experienced by

means of the Binomial and Chi-Square tests. The direct scores of the Millon Test, Whoqol-Bref, and PCL-5 were considered according to each subscale, obtaining the mean and standard deviation through descriptive statistics. To compare the differences between the scores obtained in the clinical tests and the groups by gender, age, marital status, economic stratum, exposure to violence, type of violence, occupation, and exposure to violence in the workplace, we used the Kruskal–Wallis H and Mann–Whitney U tests.

## **Results**

### *Sociodemographic Profile of the Sample*

A total of 433 Ecuadorian women participated, with a mean age of 34.6 years (*SD*: 10.6); the average level of schooling was 11.90 years (*SD*: 5.1). The level of predictive IQ (NART) was 94 (*SD*: 14.6). In Table 1, the differences between groups are shown.

### *Results of the Clinical Tests in the General Sample*

Table 2 shows the results with the mean, standard deviation and range for each of the clinical tests applied. In reference to the MCMI-IV, the personality pattern scales are shown, indicating the means of the base rate obtained in each subscale. Within the personality pattern scales, the highest values are observed in Stormy with a mean of 58.0 points, Narcissistic with a mean of 55.6 points, Compulsive with a mean of 56.5 points, and Paranoid with a mean of 57.7 points (Table 2). In reference to the Clinical Syndromes Scales, Table 2 shows the values represented by the mean base rate for each subscale. The highest values are observed for the bipolar spectrum with an average of 54.8 points. The scales of Alcohol Consumption with an average of 32.5 points, Drug Consumption with an average of 30.6 points and Schizophrenic Spectrum with an average of 28.9 points had the lowest values. In reference to the PCL-5 test, a mean of 22.8 (*SD*: 14.5) was obtained, with a minimum score of 0 and a maximum score of 65. Finally, in the Whoqol Quality of Life Scale-Bref, an average quality of life of 88.4 points was obtained (*SD*: 15.4).

### *Results of the Differences Between Clinical Tests and Quality of Life by Age Groups*

Table 3 shows that there are significant differences in the scores obtained by the participants in the scales of personality patterns, the 18 to 30 year olds showed greater affectation on the Schizoid subscale (*H*: 11.988;

**Table 1.** Sociodemographic Profile of the Sample.

Variables	Frecuencia	%	Statistical Test	Valor <i>p</i>
Age groups				
18–30 years	179	41.3	44.4	<b>.000*</b>
31–45 years	175	40.4		
46 or more	79	18.2		
Years of schooling				
1–7 years	117	27.0	35.8	<b>.000*</b>
8–12 years	113	26.1		
Mayor de 12 years	203	46.9		
Groups of women living with and without a romantic partner				
Women living with a partner	212	49.0	0.50	.701
Women living without a partner	221	51.0		
Economic strata				
Low	157	36.3	188.1	<b>.000*</b>
Medium	254	58.7		
High	22	5.1		
Exposure to gender-based violence				
Si	299	69.1	0.50	<b>.000*</b>
No	134	30.9		
Type of violence				
Not apply	212	49.0	196.6	<b>.000*</b>
Physical violence	102	23.6		
Psychological violence	113	26.1		
Sexual violence	6	1.4		
Employment situation				
Unemployed	68	15.7	181.7	<b>.000*</b>
Public employee	89	20.6		
Private employee	276	63.7		
Gender-based violence in the workplace				
Yes	108	24.9	0.50	<b>.000*</b>
No	325	75.1		

Note. \*Values  $p < 0.05$  show significant differences between the compared groups.

$p = .002$ ), followed by the Antisocial ( $H: 11.988; p = .038$ ) and Paranoid ( $H: 11.988; p = .007$ ) subscales with respect to the average obtained by the oldest ranges. Regarding the Clinical Syndromes Scales, the younger groups showed significant differences in scores on the Schizophrenic ( $H: 9.731; p = .008$ ) and Delusional spectrums ( $H: 10.573; p = .005$ ) with respect to the older age groups.

**Table 2.** Results of the Clinical Tests in the General Sample.

Descriptive Statistics				
Variable	$\bar{X}$	SD	Minimum	Maximum
Millon clinical multiaxial inventory-IV (MCMI-IV)				
Clinical personality patterns				
Schizoid	53.2	24.7	0	109
Avoidant	41.6	26.3	0	111
Melancholic	40.1	27.7	0	115
Dependent	44.6	25.7	0	111
Histrionic	53.7	22.2	0	88
Turbulent	58.0	21.4	0	100
Narcissistic	55.6	23.1	0	100
Antisocial	42.8	25.8	0	98
Sadistic	52.0	23.9	0	115
Compulsive	56.5	22.6	0	100
Negativistic	50.4	25.9	0	110
Masochistic	36.3	25.1	0	100
Schizotypal	40.8	25.8	0	105
Borderline	39.9	25.9	0	111
Paranoid	57.7	25.4	0	112
Clinical syndromes				
Generalized anxiety	43.0	29.1	0	110
Somatic symptom	43.1	27.1	0	105
Bipolar disorder	54.8	23.7	0	105
Persistent depression	38.1	28.5	0	110
Alcohol use	32.5	33.8	0	112
Drug use	30.6	31.8	0	100
Posttraumatic stress	40.6	29.6	0	108
Thought disorder	28.9	29.3	0	111
Major depression	40.5	29.4	0	111
Delusional disorder	36.6	31.4	0	110
Whoqol-Bref test				
Physical domain	26.7	4.9	13	35
Psychological domain	22.1	4.2	5	30
Social domain	11.3	3.1	3	15
Environment domain	28.4	6.5	3	40
Quality of life index	88.4	15.4	26	120
PTSD checklist for DSM-5 (PCL-5)				
Total score	22.8	14.5	0	65

Note. Test Whoqol-Bref = World Health Organization Quality of Life, short version; PCL-5 = PTSD Checklist self-assessment questionnaire to aid diagnosis from the DSM-5.

**Table 3.** Results of the Differences Between Clinical Tests and Quality of Life by Age Groups.

Variables	18–30 years		31–45 years		46 or more		Kruskal Wallis	Asymptomatic Significance*
	$\bar{X}$	DS	$\bar{X}$	DS	$\bar{X}$	DS		
Millon clinical multi-axial inventory-IV (MCMI-IV)								
Clinical personality patterns								
Schizoid	57.95	24.2	50.0	23.8	49.7	26.1	11.988	<b>.002*</b>
Avoidant	43.2	27.5	40.3	23.9	41.0	28.5	0.806	.668
Melancholic	41.6	28.2	39.5	26.0	38.3	30.5	1.179	.555
Dependent	46.4	27.8	42.7	22.9	45.1	26.6	1.381	.501
Histrionic	54.2	21.1	52.3	23.3	55.6	22.0	1.147	.564
Turbulent	59.1	20.2	55.2	22.5	61.8	21.2	4.809	.090
Narcissistic	57.4	22.9	52.9	24.0	57.8	20.8	4.903	.086
Antisocial	46.2	25.6	42.1	25.4	36.9	26.5	6.525	<b>.038*</b>
Sadistic	54.8	24.8	49.9	23.3	50.4	22.5	4.977	.083
Compulsive	57.5	22.4	53.7	22.8	60.4	22.0	5.172	.075
Negativistic	52.9	26.3	47.2	25.4	51.9	25.5	5.630	.060
Masochistic	36.8	25.9	37.0	23.9	33.7	25.9	1.380	.502
Schizotypal	43.1	26.0	39.7	25.7	38.3	25.4	2.649	.266
Borderline	41.7	25.4	38.6	25.9	38.9	27.3	1.527	.466
Paranoid	61.4	24.9	53.9	25.5	57.5	25.3	10.037	<b>.007*</b>
Clinical syndromes								
Generalized anxiety	46.2	29.6	39.7	27.1	43.0	31.7	3.862	.145
Somatic symptom	44.0	28.2	42.1	24.9	43.3	29.2	0.788	.674
Bipolar disorder	57.1	24.5	53.2	23.1	53.3	23.2	4.846	.089
Persistent depression	40.3	28.9	36.8	26.9	36.1	31.0	2.355	.308
Alcohol use	34.0	34.6	34.5	33.4	24.5	31.9	5.012	.082
Drug use	33.2	31.7	27.9	31.8	30.5	31.8	3.314	.191
Posttraumatic stress	43.3	30.3	38.9	28.1	38.6	31.2	1.862	.394
Thought disorder	33.9	29.4	25.5	29.7	25.0	26.7	9.731	<b>.008*</b>
Major depression	41.5	30.0	39.5	28.0	40.4	31.3	0.331	.848
Delusional disorder	42.0	30.8	30.4	31.8	38.0	29.5	10.573	<b>.005*</b>
Whoqol-Bref test								
Physical domain	26.6	4.4	26.6	5.1	27.1	5.3	0.689	.709
Psychological domain	21.9	4.0	22.0	4.3	22.7	4.7	1.344	.511
Social domain	11.1	2.7	11.4	3.4	11.5	3.1	1.215	.545
Environment domain	28.3	6.4	28.2	6.7	29.1	6.0	0.784	.676
Quality of life index	87.9	14.5	88.2	15.9	90.3	16.4	1.750	.417
PTSD checklist for DSM-5 (PCL-5)								
Total score	22.3	13.6	22.5	14.0	24.8	17.2	0.598	.742

Note. Test Whoqol-Bref=World Health Organization Quality of Life, short version; PCL-5=PTSD Checklist self-assessment questionnaire to aid diagnosis from the DSM-5.

\*Values  $p < 0.05$  show significant differences between the compared groups.

### ***Results of the Differences Between the Clinical, Personality and Quality of Life Tests in the Groups of Women Living with and Without a Romantic Partner***

Table 4 shows that there are significant differences in the scores obtained on the personality pattern scales. Women who lived without a romantic partner show greater affectation, compared to those who live with a partner, on the Schizoid, Histrionic, Stormy, Narcissistic, Compulsive, Negative, and Paranoid scales, with values ( $p < .005$ ). Similarly, in reference to the Clinical Syndromes Scales, women who lived without a partner were more likely to show higher average values on the Bipolar Spectrum and the Drug Use, Schizophrenic Spectrum and Delusional scales than women living with a partner, who reported lower average values.

### ***Results of the Differences Between Clinical Tests and Quality of Life by Years of Schooling***

Table 5 shows that the groups with fewer years of schooling showed more affectation in the Melancholic, Antisocial, Masochistic, Schizotypal, and Limit of the Personality Pattern Scales (MCMI-IV) subscales with respect to the groups of women with higher education. In contrast, women with more years of schooling obtained higher average scores on the Schizoid, Stormy, Narcissistic, Impulsive, Negative, and Paranoid subscales compared to those obtained by women with fewer years of schooling. Considering the Clinical Syndromes Scales (MCMI-IV), women with fewer years of schooling obtained higher average scores on the Persistent Depression, Alcohol Consumption, Posttraumatic Stress and Major Depression subscales compared with those obtained by women with more years of schooling. For the Bipolar Spectrum, Schizophrenic Spectrum and Delusional subscales, women with more years of schooling obtained higher impairment scores than women with fewer years of schooling ( $p < .05$ ).

Table 5 shows that women with fewer years of schooling showed a greater risk of facing posttraumatic symptoms than women with more years of schooling ( $H: 17, 758; p = .000$ ). It is also shown that women with more years of schooling obtained better averages on the quality of life index compared to women with fewer years of schooling ( $H: 14, 210; p = .001$ ).

### ***Results of the Differences Between Clinical Trials and Quality of Life by Economic Strata***

As shown in Table 6, women with a lower socioeconomic level reported greater affectation in the Evitative, Melancholic, Dependent, Masochistic

**Table 4.** Results of the Differences Between the Clinical, Personality and Quality of Life Tests in the Groups of Women Living with and without a Romantic Partner.

Variables	Women Living Without a Romantic Partner		Women Living with a Romantic Partner		U de Mann Whitney	Asymptomatic Significance
	$\bar{X}$	SD	$\bar{X}$	SD		
Millon clinical multiaxial inventory-IV (MCMI-IV)						
Clinical personality patterns						
Schizoid	57.0	24.2	49.2	24.6	19.216.5	<b>.001*</b>
Avoidant	40.3	27.1	43.0	25.3	21.928.0	.249
Melancholic	39.4	28.7	40.9	26.8	22.618.5	.534
Dependent	45.2	26.5	44.0	24.9	22.944.0	.711
Histrionic	56.6	21.2	50.5	22.8	19.891.0	<b>.007*</b>
Turbulent	61.0	20.0	54.8	22.4	20.315.5	<b>.017*</b>
Narcissistic	58.7	22.2	52.5	23.6	19.729.5	<b>.004*</b>
Antisocial	44.3	26.2	41.3	25.4	22.005.0	.273
Sadistic	54.2	24.1	49.8	23.4	20.904.5	.052
Compulsive	58.8	22.6	54.1	22.4	20.698.0	<b>.036*</b>
Negativistic	55.1	25.1	45.5	25.8	18.552.0	<b>.000*</b>
Masochistic	34.0	24.8	38.8	25.2	20.773.0	<b>.041*</b>
Schizotypal	40.0	25.8	41.7	25.8	22.667.5	.560
Borderline	39.9	25.6	39.9	26.3	23.030.0	.761
Paranoid	62.7	23.8	52.5	25.9	18.075.5	<b>.000*</b>
Clinical syndromes						
Generalized anxiety	43.4	30.4	42.5	27.7	22.969.5	.725
Somatic symptom	42.3	27.7	43.9	26.4	22.851.0	.658
Bipolar disorder	57.8	23.4	51.7	23.7	20.615.0	<b>.030*</b>
Persistent depression	37.3	29.2	38.9	27.8	22.484.5	.469
Alcohol use	29.3	35.0	35.8	32.2	20.102.0	<b>.008*</b>
Drug use	37.9	31.1	22.9	30.7	17.441.5	<b>.000*</b>
Posttraumatic stress	40.9	31.5	40.3	27.6	23.396.0	.982
Thought disorder	36.5	28.8	21.0	27.7	15.583.5	<b>.000*</b>
Major depression	39.8	30.7	41.3	28.0	22.355.5	.410
Delusional disorder	47.0	28.1	25.7	31.0	15.357.0	<b>.000*</b>
PTSD checklist for DSM-5 (PCL-5)						
Total score	21.3	14.1	24.4	14.7	20.418.0	<b>.021*</b>
Whoqol-Bref test						
Physical domain	27.1	4.6	26.2	5.0	21.066.5	.069
Psychological domain	22.6	4.0	21.6	4.4	20.447.0	<b>.021*</b>
Social domain	11.5	3.0	11.1	3.2	21.105.5	.072
Environment domain	29.2	5.8	27.5	7.0	19.800.5	<b>.005*</b>
Quality of life index	90.4	14.4	86.4	16.2	20.541.0	<b>.027*</b>

Note. Test Whoqol-Bref= World Health Organization Quality of Life, short version; PCL-5=PTSD Checklist self-assessment questionnaire to aid diagnosis from the DSM-5.

\*Values  $p < 0.05$  show significant differences between the compared groups.

**Table 5.** Results of the Differences Between Clinical Tests and Quality of Life by Years of Schooling.

Variables	Years of Schooling Groups						Kruskal Wallis	Asymptomatic Significance
	1-7 years		8-12 years		13 years or more			
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD		
Millon clinical multi-axial inventory-IV (MCMI-IV)								
Clinical personality patterns								
Schizoid	48.4	25.3	52.4	24.1	56.4	24.2	5.553	.062
Avoidant	43.3	25.0	43.6	25.8	39.6	27.2	2.656	.265
Melancholic	43.8	24.4	40.5	28.0	37.8	29.3	5.210	.074
Dependent	45.4	26.1	45.8	25.6	43.6	25.6	0.471	.790
Histrionic	48.9	22.9	55.9	22.9	55.1	21.0	7.533	<b>.023*</b>
Turbulent	52.8	22.9	58.2	22.5	60.9	19.3	8.758	<b>.013*</b>
Narcissistic	51.2	23.5	55.3	23.5	58.4	22.3	5.474	.065
Antisocial	43.5	25.0	41.8	25.5	43.0	26.6	0.299	.861
Sadistic	47.1	23.2	50.4	23.4	55.8	23.9	13.261	<b>.001*</b>
Compulsive	48.9	21.6	55.5	22.8	61.5	21.9	23.443	<b>.000*</b>
Negativistic	47.1	24.7	47.0	26.2	54.2	26.0	8.505	<b>.014*</b>
Masochistic	42.7	24.0	36.7	25.0	32.5	25.1	13.508	<b>.001*</b>
Schizotypal	44.4	23.8	44.2	25.3	36.9	26.7	8.866	<b>.012*</b>
Borderline	44.1	25.5	39.8	26.5	37.6	25.7	5.852	.054
Paranoid	48.7	24.2	56.5	25.8	63.6	24.3	27.215	<b>.000*</b>
Clinical syndromes								
Generalized anxiety	44.1	24.4	44.8	28.9	41.3	31.6	1.762	.414
Somatic symptom	43.9	25.1	43.9	26.9	42.1	28.3	0.348	.840
Bipolar disorder	47.4	25.1	53.4	24.2	59.9	21.4	15.367	<b>.000*</b>
Persistent depression	43.8	24.9	38.7	28.2	34.5	30.1	11.908	<b>.003*</b>
Alcohol use	40.1	33.2	34.5	33.4	27.0	33.4	17.553	<b>.000*</b>
Drug use	17.7	29.6	32.5	32.0	36.9	30.7	16.902	<b>.000*</b>
Posttraumatic stress	45.9	25.6	41.2	29.1	37.3	31.6	7.652	<b>.022*</b>
Thought disorder	15.7	24.5	29.9	32.4	35.9	27.5	47.195	<b>.000*</b>
Major depression	46.7	24.6	41.8	28.6	36.2	31.7	13.583	<b>.001*</b>
Delusional disorder	19.5	30.4	34.1	33.7	47.8	25.4	52.747	<b>.000*</b>
Whoqol-Bref test								
Physical domain	25.5	5.6	27.1	4.8	27.1	4.3	7.586	<b>.023*</b>
Psychological domain	20.9	4.4	22.2	4.4	22.7	3.9	14.031	<b>.001*</b>
Social domain	10.7	3.1	11.1	2.8	11.7	3.2	10.773	<b>.005*</b>
Environment domain	26.7	7.0	27.7	7.1	29.7	5.5	16.504	<b>.000*</b>
Quality of life index	83.9	17.1	88.1	15.8	91.3	13.5	14.210	<b>.001*</b>
PTSD checklist for DSM-5 (PCL-5)								
Total score	26.7	13.0	23.3	14.3	20.3	14.9	17.758	<b>.000*</b>

Note. Test Whoqol-Bref=World Health Organization Quality of Life, short version; PCL-5=PTSD Checklist self-assessment questionnaire to aid diagnosis from the DSM-5.

\*Values  $p < 0.05$  show significant differences between the compared groups.

**Table 6.** Results of the Differences Between Clinical Trials and Quality of Life by Economic Strata.

Variables	Economic stratum						Kruskal Wallis	Asymptomatic Significance
	Low		Medium		High			
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD		
Millon clinical multiaxial inventory-IV (MCMI-IV)								
Clinical personality patterns								
Schizoid	47.1	24.0	56.5	24.5	58.4	24.5	14.668	<b>.001*</b>
Avoidant	44.0	25.2	40.2	26.9	40.6	26.0	2.343	.310
Melancholic	44.3	25.1	37.7	28.7	38.7	32.4	7.341	<b>.025*</b>
Dependent	44.8	25.0	44.8	26.4	41.2	23.0	0.353	.838
Histrionic	47.9	23.1	56.9	20.9	57.0	22.0	15.324	<b>.000*</b>
Turbulent	48.7	23.2	63.4	18.2	62.5	20.1	36.605	<b>.000*</b>
Narcissistic	48.8	24.5	59.7	20.9	57.2	25.3	17.469	<b>.000*</b>
Antisocial	43.1	25.7	42.9	26.2	40.8	23.1	0.262	.877
Sadistic	48.5	24.1	53.9	23.8	55.2	19.8	2.846	.241
Compulsive	49.0	24.5	60.7	21.0	61.8	10.3	17.917	<b>.000*</b>
Negativistic	45.6	24.6	53.0	26.5	54.8	24.0	10.288	<b>.006*</b>
Masochistic	43.3	24.1	32.4	25.0	33.1	23.7	21.193	<b>.000*</b>
Schizotypal	43.7	24.5	38.9	26.8	43.0	21.2	5.425	.066
Borderline	43.4	25.1	38.4	26.3	32.9	25.3	7.282	<b>.026*</b>
Paranoid	50.6	25.0	61.0	25.5	70.5	9.4	22.106	<b>.000*</b>
Clinical syndromes								
Generalized anxiety	46.5	25.5	39.9	30.9	53.1	27.5	7.623	<b>.022*</b>
Somatic symptom	44.2	24.1	41.6	29.0	52.2	22.1	3.629	.163
Bipolar disorder	48.4	24.5	58.5	22.3	58.3	24.9	11.669	<b>.003*</b>
Persistent depression	44.4	25.2	34.2	29.6	38.4	31.5	17.746	<b>.000*</b>
Alcohol use	44.3	27.0	26.3	35.7	20.0	31.1	50.310	<b>.000*</b>
Drug use	9.8	23.0	42.2	29.9	44.0	31.1	98.673	<b>.000*</b>
Posttraumatic stress	45.6	25.6	37.4	31.5	42.5	29.9	9.411	<b>.009*</b>
Thought disorder	8.5	21.6	39.9	27.1	47.5	19.0	166.805	<b>.000*</b>
Major depression	43.3	24.9	38.9	31.6	39.5	32.0	4.721	.094
Delusional disorder	12.6	26.0	49.8	25.9	55.4	19.3	132.206	<b>.000*</b>
Whoqol-Bref test								
Physical domain	26.1	4.9	26.9	4.8	28.0	4.6	3.755	.153
Psychological domain	20.6	4.2	22.8	4.0	24.6	3.9	32.072	<b>.000*</b>
Social domain	10.4	2.9	11.7	3.1	12.7	2.3	30.937	<b>.000*</b>
Environment domain	25.3	6.9	30.0	5.6	31.6	3.9	52.921	<b>.000*</b>
Quality of life index	82.4	15.4	91.4	14.5	97.0	12.2	31.733	<b>.000*</b>
PTSD checklist for DSM-5 (PCL-5)								
Total score	24.8	12.4	21.7	15.6	21.0	13.4	8.083	<b>.018*</b>

Note. Test Whoqol-Bref=World Health Organization Quality of Life, short version; PCL-5=PTSD Checklist self-assessment questionnaire to aid diagnosis from the DSM-5.

\*Values  $p < 0.05$  show significant differences between the compared groups.

and Borderline subscales compared to the averages obtained by women at a higher socioeconomic level. Women of higher socioeconomic status obtained scores of greater affectation in the Schizoid, Histrionic, Stormy, Compulsive, Negative and Paranoid subscales compared to the averages obtained by women with lower socioeconomic status. Regarding the differences found in the Clinical Syndromes Scales (MCMI-IV), women with lower socioeconomic status had higher scores in the subscales for Persistent Depression, Alcohol Consumption, Posttraumatic Stress, and Major Depression compared with the average scores obtained by women at the highest socioeconomic level. In contrast, women with higher socioeconomic status obtained higher impairment scores on the Bipolar Spectrum, Schizophrenic Spectrum, and Delusional subscales than women with lower socioeconomic status ( $p < .05$ ).

Table 6 shows that women at a lower economic level showed a higher average risk of presenting posttraumatic stress symptoms than women at a higher economic level (H: 8.083;  $p = 0.018$ ). Women at a lower economic level also obtained lower average scores on the quality of life index compared to women at a higher economic level (H: 31.733;  $p = .000$ ).

### ***Results of the Differences Between Clinical Tests and Quality of Life in Women Exposed or Not to Gender Violence***

As shown in Table 7, women who reported being exposed to gender-based violence reported higher averages in the Negativist and Paranoid subscales compared to the averages obtained by women who did not report exposure to gender-based violence. Regarding the differences found in the Clinical Syndromes Scales (MCMI-IV), it was found that women exposed to gender violence showed a higher level of Generalized Anxiety, Bipolar Spectrum, Drug Use, Schizophrenic Spectrum, and Delusional scores compared to the score averages obtained by women who did not report exposure to gender-based violence. Table 7 shows that women exposed to violence scored lower on the quality of life index than women who did not report exposure to gender violence (U: 14.917.0;  $p = .019$ ).

## **Discussion**

This study sought to provide expanded and current data on the differences in social well-being and quality of life among women exposed or not exposed to gender violence, considering the effect of sociodemographic variables. In the literature prior to this research, some studies were found that had analyzed the impact of VAW in society; according to the data provided by the WHO

**Table 7.** Results of the Differences Between Clinical Tests and Quality of Life in Women Exposed or Not to Gender Violence.

Variables	Women Exposed to Gender Violence		Women No Exposed to Gender Violence		U de Mann Whitney	Asymptomatic Significance
	$\bar{X}$	SD	$\bar{X}$	SD		
Millon clinical multiaxial inventory-IV (MCMI-IV)						
Clinical personality patterns						
Schizoid	56.4	25.2	52.1	24.4	15.801.0	.120
Avoidant	39.6	27.9	42.3	25.7	16.327.5	.277
Melancholic	41.9	29.6	39.5	27.1	16.717.0	.459
Dependent	43.9	28.3	44.9	24.8	16.870.5	.546
Histrionic	53.2	20.6	53.8	22.7	16.268.0	.254
Turbulent	59.1	20.5	57.7	21.7	17.493.5	.960
Narcissistic	58.0	22.2	54.8	23.3	16.785.0	.496
Antisocial	41.6	26.0	43.2	25.8	16.954.0	.595
Sadistic	56.4	23.5	50.6	23.8	15.357.5	.051
Compulsive	59.1	23.8	55.6	22.2	17.136.5	.713
Negativistic	57.6	26.3	48.0	25.4	13.768.5	<b>.001*</b>
Masochistic	34.1	25.2	37.1	25.1	16.479.5	.341
Schizotypal	40.4	25.9	41.0	25.8	17.116.0	.700
Borderline	41.7	26.1	39.4	25.9	16.835.5	.525
Paranoid	66.2	25.1	54.9	24.9	12.348.0	<b>.000*</b>
Clinical syndromes						
Generalized anxiety	49.1	31.8	40.9	27.9	14.601.0	<b>.009*</b>
Somatic symptom	42.2	27.3	43.4	27.0	17.103.0	.691
Bipolar disorder	61.2	22.5	52.7	23.7	13.970.0	<b>.001*</b>
Persistent depression	38.7	29.8	37.9	28.1	17.349.5	.859
Alcohol use	27.5	35.5	34.1	33.0	14.864.0	<b>.013*</b>
Drug use	35.6	31.9	28.9	31.6	14.739.5	<b>.008*</b>
Posttraumatic stress	45.9	31.9	38.9	28.7	15.521.5	.071
Thought disorder	42.1	28.0	24.5	28.4	11.005.0	<b>.000*</b>
Major depression	42.9	31.6	39.7	28.6	16.752.5	.478
Delusional disorder	50.9	25.5	31.8	31.7	11.531.5	<b>.000*</b>
Whoqol-Bref test						
Physical domain	27.4	4.9	26.4	4.8	16.016.5	.171
Psychological domain	22.9	4.3	21.8	4.2	15.267.5	<b>.041*</b>
Social domain	12.1	3.4	11.0	2.9	13.543.0	<b>.000*</b>
Environment domain	29.6	5.9	27.9	6.6	15.248.5	<b>.041*</b>
Quality of life index	92.1	14.8	87.2	15.5	14.917.0	<b>.019*</b>
PTSD checklist for DSM-5 (PCL-5)						
Total score	22.2	14.2	23.0	14.6	16.932.5	.583

Note. Test Whoqol-Bref=World Health Organization Quality of Life, short version; PCL-5=PTSD Checklist self-assessment questionnaire to aid diagnosis from the DSM-5.

\*Values  $p < 0.05$  show significant differences between the compared groups.

(2021), VAW was considered to be more than a problem of social order; it is an emerging public health problem. It is well known that VAW has effects on physical and mental health (Carey et al., 2018; Meyer et al., 2021; Moulding et al., 2020) and, in addition, important repercussions for women's psychosocial well-being (Chernyak, 2018; Damra & Abujilban, 2020; Polychronopoulou & Douzenis, 2016; Vives-Cases et al., 2018) and their quality of life (Malik et al., 2021; Wessells & Kostelny, 2022).

The results obtained in our research coincide in that the profile of mental health and perception of quality of life is more affected in women who have been exposed to gender violence compared with a group of women who did not report exposure to gender violence. The percentage of women exposed to violence in the studied sample ( $n=433$ ) was 69.1%, and the type of violence most often reported was psychological (26.1%), data that coincide with the survey National Institute of Statistics and Censuses (2019).

The psychosocial consequences of VAW seem to be associated with the effect of sociodemographic and economic variables. Despite the fact that the literature is limited regarding these findings, the WHO (2021) has already described several factors that could be associated with intimate partner violence and sexual VAW, including a low level of education (in aggressors and victims), previous history of child abuse, domestic abuse, alcohol use, little access to paid employment for women, gender inequality and normalization of violence associated with cultural aspects. In this study, it was found that trauma had a greater impact on the mental health and quality of life of older women than younger women. Additionally, the level of education, economic level, and employment status of women is an important indicator to predict the effects on the personality profile, emotional well-being and quality of life of women, especially those who have been exposed to violence (Alsaker et al., 2018; Brzank, 2009).

As we have shown in this study, Ecuadorian women are mostly survivors of gender violence, with great impact on their mental health and social well-being affects their quality of life in the physical, psychological, social, and environmental dimensions, and their ability to produce, develop and contribute to their communities. These data agree with previous studies in various cultural settings, where the same effects were observed (Bauer et al., 2000; Murray et al., 2021). These findings support those by the Office for Women's Health (2017) and WHO (2021) that VAW is a global problem that violates their rights and requires policies to eradicate the causes, as stipulated by the United Nations (1993).

This research has significant implications in three areas regarding the Ecuadorian sample. Firstly, it is crucial for the public health system, as health is a fundamental right according to Article 32 of the Constitution of the

Republic of Ecuador (2008). Additionally, health and well-being are recognized as universal rights and are an integral part of the sustainable development goals outlined in the 2030 agenda (2015). The research conducted in the Ecuadorian sample has a second implication for the Ecuadorian legal system. Based on the data collected, the support and protection measures for victims of violence should be reviewed, taking into account the sociodemographic and cultural factors that put the victims at risk. Moreover, the protocols of attention should be reformulated. It is also important to administer executive justice swiftly for the aggressors to prevent new acts of violence.

Finally, the study's data is expected to have a significant impact on society by increasing social awareness of the harm caused by VAW. It may also lead to the implementation of educational campaigns aimed at promoting gender equality and respect at all school levels. Additionally, psychoeducation strategies may be implemented in families as it is the area where the highest incidence of VAW occurs.

Based on this research, it is hoped that the scientific community in Ecuador will use this data to compile new information on the epidemiology of VAW. Additionally, the State Attorney General's Office (2021) and the National Institute of Statistics and Censuses (2019) could update their information based on this research in order to maintain a continuous alert that enables the reduction and future eradication of violence in Ecuadorian society. This is crucial given that health is a right in Ecuador, and the reduction of VAW is an important part of the sustainable development goals in the 2030 agenda (United Nations, 2015).

### *Study Limitations*

This study had limitations in its design and execution. COVID-19 affected the course of the investigation due to confinement measures. It was difficult to access rural communities, and this hindered the coordination of schedules in the province of Pichincha, where most of the subjects were obtained.

### **Conclusions**

In this study, it was shown that the majority of Ecuadorian women have been exposed to gender violence and that this is exercised mainly in the context of a couple, with less incidence in the socio-labor environment. Women exposed to gender violence showed a greater impact on personality profiles, clinical tests, and quality of life in the physical, psychological, social, and environmental domains compared to women not exposed to violence. In addition, these effects were mediated by age, economic level, education, marital status,

and exposure to physical violence and psychological or sexual abuse within the socio-family or work contexts.

### Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interests with respect to the authorship and/or publication of this article.

### Funding

The author(s) received no financial support for the research and/or authorship of this article.

### Ethics approval and consent to participate

The research received approval by the Ethical Committee and Human Research of UTE University of Medical Sciences <https://www.ute.edu.ec/comite-de-etica-de-investigacion-ensereres-humanos-ute-ceish/#1507826021858-0b8f2ecb-bb21> with a protocol identifier code of 040-CEISH-jcm. Informed consent has been obtained from the participants before the beginning of data collection. I confirm that all methods were performed in accordance with the Declaration of Helsinki—ethical principles for medical research involving human subjects (WMA, 2022).

### ORCID iD

Alexandra Yakeline Meneses  <https://orcid.org/0000-0002-2721-7723>

### References

- Alsaker, K., Moen, B. E., Morken, T., & Baste, V. (2018). Intimate partner violence associated with low quality of life - a cross-sectional study. *BMC Women's Health, 18*(1), 1–7. <https://doi.org/10.1186/s12905-018-0638-5>
- Apatinga, G. A., Tenkorang, E. Y., & Issahaku, P. (2020). Silent and lethal: Consequences of sexual violence against married women in Ghana. *Journal of Interpersonal Violence, 36*(23–24), NP13206–NP13228. <https://doi.org/10.1177/0886260520905552>
- Au, T. M., Dickstein, B. D., Comer, J. S., Salters-Pedneault, K., & Litz, B. T. (2013). Co-occurring posttraumatic stress and depression symptoms after sexual assault: A latent profile analysis. *Journal of Affective Disorders, 149*(1–3), 209–216. <https://doi.org/10.1016/j.jad.2013.01.026>
- Bauer, H. M., Rodríguez, M. A., Quiroga, S. S., & Flores-Ortiz, Y. G. (2000). Barriers to health care for abused Latina and Asian immigrant women. *Journal of Health Care for the Poor and Underserved, 11*(1), 33–44. <https://doi.org/10.1353/hpu.2010.0590>
- Blanco, V., López, L., Otero, P., Torres, Á. J., Ferraces, M. J., & Vázquez, F. L. (2021). Sexual victimization and mental health in Female University Students.

- Journal of Interpersonal Violence*, 37(15–16), NP14215–NP14238. <https://doi.org/10.1177/08862605211005148>
- Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The posttraumatic stress disorder checklist for DSM-5 (PCL-5): Development and initial psychometric evaluation. *Journal of Traumatic Stress*, 28(6), 489–498. <https://doi.org/10.1002/jts.22059>
- Brzank, P. (2009). (Häusliche) Gewalt gegen Frauen: sozioökonomische Folgen und gesellschaftliche Kosten. *Bundesgesundheitsblatt—Gesundheitsforschung—Gesundheitsschutz*, 52(3), 330–338. <https://doi.org/10.1007/s00103-009-0795-7>
- Campbell, R., & Wasco, S. M. (2005). Understanding rape and sexual assault. *Journal of Interpersonal Violence*, 20(1), 127–131. <https://doi.org/10.1177/0886260504268604>
- Campbell, R., Dworkin, E., & Cabral, G. (2009). An ecological model of the impact of sexual assault on women's mental health. *Trauma, Violence, & Abuse*, 10(3), 225–246. <https://doi.org/10.1177/1524838009334456>
- Carey, K. B., Norris, A. L., Durney, S. E., Shepardson, R. L., & Carey, M. P. (2018). Mental health consequences of sexual assault among first-year college women. *Journal of American College Health*, 66(6), 480–486. <https://doi.org/10.1080/07448481.2018.1431915>
- Chernyak, E. (2018). Intimate partner violence in Tajikistan: Risk and protective factors. *Violence and Victims*, 33(6), 1124–1147. <https://doi.org/10.1891/0886-6708.33.6.1124>
- Damra, J., & Abujilban, S. (2020). Reasons for not seeking professional help by abused refugee women: A qualitative study. *Journal of Interpersonal Violence*, 37(5–6), 2877–2895. <https://doi.org/10.1177/0886260520943731>
- Gharaibeh, M., & Oweis, A. (2009). Why do Jordanian women stay in an abusive relationship: implications for health and social well-being? *Journal of Nursing Scholarship*, 41(4), 376–384. <https://doi.org/10.1111/j.1547-5069.2009.01305.x>
- Hauw, M. E., Revranche, M., Kovess-Masfety, V., & Husky, M. M. (2020). Sexual and nonsexual interpersonal violence, psychiatric disorders, and mental health service use. *Journal of Traumatic Stress*, 34(2), 416–426. <https://doi.org/10.1002/jts.22638>; <https://www.acnur.org/fileadmin/Documentos/BDL/2002/1286.pdf?file=fileadmin/Documentos/BDL/2002/1286>
- Khan, F. I., Welch, T. L., & Zillmer, E. A. (1993). MMPI-2 profiles of battered women in transition. *Journal of Personality Assessment*, 60(1), 100–111. [https://doi.org/10.1207/s15327752jpa6001\\_7](https://doi.org/10.1207/s15327752jpa6001_7)
- Kimberg, L., Vasquez, J. A., Sun, J., Anderson, E., Ferguson, C., Arreguin, M., & Rodriguez, R. M. (2021). Fears of disclosure and misconceptions regarding domestic violence reporting amongst patients in two US emergency departments. *PLoS One*, 16(12), e0260467. <https://doi.org/10.1371/journal.pone.0260467>
- Malik, M., Munir, N., Ghani, M. U., & Ahmad, N. (2021). Domestic violence and its relationship with depression, anxiety and quality of life: A hidden dilemma of Pakistani women. *Pakistan Journal of Medical Sciences*, 37(1), 191–194. <https://doi.org/10.12669/pjms.37.1.2893>

- Meyer, J. E., Jammula, V., & Arnett, P. A. (2021). Head trauma in a community-based sample of victims of intimate partner violence: prevalence, mechanisms of injury and symptom presentation. *Journal of Interpersonal Violence, 37*(17–18), NP15255–NP15274. <https://doi.org/10.1177/08862605211016362>
- Millon, T., Grossman, S. D., Millon, C., Carbonell, E. J., Violeta Cardenal Hernández, Margarita Ortiz-Tallo Alarcón, & Sánchez, P. (2018). *MCMI-IV, inventario clínico multiaxial de Millon-IV: manual*. Madrid Pearson.
- Ministry of Public Health of Ecuador. (2019). *Comprehensive care for victims of gender-based violence and serious human rights violations*. Technical rules. <https://www.salud.gob.ec/wp-content/uploads/2021/03/Norma-tecnica-de-VBG-y-GVDH.pdf>
- Morris, M. C., Bailey, B., Hellman, N., Williams, A., Lannon, E. W., Kutcher, M. E., Schumacher, J. A., & Rao, U. (2020). Dynamics and determinants of cortisol and alpha-amylase responses to repeated stressors in recent interpersonal trauma survivors. *Psychoneuroendocrinology, 122*, 104899. <https://doi.org/10.1016/j.psyneuen.2020.104899>
- Morris, M. C., Sanchez-Sáez, F., Bailey, B., Hellman, N., Williams, A., Schumacher, J. A., & Rao, U. (2020). Predicting posttraumatic stress disorder among survivors of recent interpersonal violence. *Journal of Interpersonal Violence, 37*(13–14), NP11460–NP11489. <https://doi.org/10.1177/0886260520978195>
- Moulding, N., Franzway, S., Wendt, S., Zufferey, C., & Chung, D. (2020). Rethinking women's mental health after intimate partner violence. *Violence Against Women, 27*(8), 1064–1090. <https://doi.org/10.1177/1077801220921937>
- Murray, S. M., Lasater, M. E., Guimond, M.-F., Poku, O., Musci, R., Al-Fataftah, M., Kasina, L., Lwambi, M., Salaimh, A., & Falb, K. (2021). Measuring sexual violence stigma in humanitarian contexts: Assessment of scale psychometric properties and validity with female sexual violence survivors from Somalia and Syria. *Conflict and Health, 15*(1), 96. <https://doi.org/10.1186/s13031-021-00431-z>
- Musayón O, Y., Rosa, V. B., Loncharich V, N., & Leal D, H. (2007). Mujer, drogas y violencia: complejidades de un fenómeno actual. *Investigación Y Educación En Enfermería, 25*(2), 84–95.
- National Institute of Statistics and Censuses (2019). *Violence based gender*. <https://www.ecuadorencifras.gob.ec/violencia-de-genero/>
- Nelson, H. E., & Willison, J. R. (1991). *The revised national adult reading test—Test manual*. NFER-Nelson.
- Oakley, L. D., Luebke, J., Dosch, N. C., Snedden, T. R., Hernadez, H., Lemke, M., & Volland, R. P. (2021). Traumatic brain injury screening and the unmet health needs of shelter-seeking women with head injuries related to intimate partner violence. *Women's Health Reports, 2*(1), 586–593. <https://doi.org/10.1089/whr.2021.0056>
- Office on Women's Health OASH. (2017). *Office on women's health*. Womenshealth.gov. <https://www.womenshealth.gov/>
- Ottisova, L., Hemmings, S., Howard, L. M., Zimmerman, C., & Oram, S. (2016). Prevalence and risk of violence and the mental, physical and sexual health

- problems associated with human trafficking: An updated systematic review. *Epidemiology and Psychiatric Sciences*, 25(4), 317–341.
- Pluck, G., Almeida, P., Gonzalez, A., Muñoz, R., et al. (2017). Estimation of premorbid cognitive function with the word accentuation test. *Revista Ecuatoriana de Neurología*, 26(3), 226–234. [https://revuecuatneurol.com/magazine\\_issue\\_article/estimacion-funcion-cognitiva-premorbida-test-acentuacion-palabras/](https://revuecuatneurol.com/magazine_issue_article/estimacion-funcion-cognitiva-premorbida-test-acentuacion-palabras/)
- Polychronopoulou, M., & Douzenis, A. (2016). The psychosocial repercussions of domestic violence in battered women. *Psychiatriki*, 27(2), 148–149. <https://doi.org/10.22365/jpsych.2016.272.148>
- Rivas, E., Bonilla, E., & Vázquez, J. J. (2019). Factores de riesgo asociados al consumo de sustancias en mujeres víctimas de maltrato en contexto de pobreza. *Anales de Psicología*, 36(1), 173–180. <https://doi.org/10.6018/analesps.362541>
- Shuman, S. J., Falb, K. L., Cardoso, L. F., Cole, H., Kpebo, D., & Gupta, J. (2016). Perceptions and Experiences of Intimate Partner Violence in Abidjan, Côte d'Ivoire. *PLoS One*, 11(6), e0157348. <https://doi.org/10.1371/journal.pone.0157348>
- Smirl, J. D., Jones, K. E., Copeland, P., Khatra, O., Taylor, E. H., & Van Donkelaar, P. (2019). Characterizing symptoms of traumatic brain injury in survivors of intimate partner violence. *Brain Injury*, 33(12), 1529–1538. <https://doi.org/10.1080/02699052.2019.1658129>
- State Attorney General's Office. (2021). *Estadísticas FGE. Violencia de Género*. Fiscalía.gob.ec. <https://www.fiscalia.gob.ec/estadisticas-fge/>
- Tejedor-Gómez, J. E., González-Ortega, G. E., & Durán-Ocampo, A. R. (2021). Análisis jurídico de la violencia contra la mujer en el ordenamiento jurídico ecuatoriano. *Dominio de Las Ciencias*, 7(3), 1364–1389. <https://doi.org/10.23857/dc.v7i3.2061>
- United Nations. (1993). *Declaration on the elimination of violence against women: Resolution/adopted by the general assembly*. digitalibrary.un.org. <https://digitalibrary.un.org/record/179739?ln=en>
- United Nations. (2015). *The 17 sustainable development goals*. United Nations. <https://sdgs.un.org/goals>
- UN WOMEN. (2015). *Frequently asked questions: Types of violence against women and girls*. UN Women—Headquarters. <http://www.unwomen.org/en/what-we-do/ending-violence-against-women/faqs/types-of-violence>
- Vallièrès, F., Gilmore, B., Nolan, A., Maguire, P., Bondjers, K., McBride, O., Murphy, J., Shevlin, M., Karatzias, T., & Hyland, P. (2020). Sexual violence and its associated psychosocial effects in Ireland. *Journal of Interpersonal Violence*, 37(11–12), NP9066–NP9088. <https://doi.org/10.1177/0886260520978193>
- Vives, C., La Parra, D., Gil, D., & Caballero, P. (2018). Acceptability of violence against women among the Roma Population in Spain. *Journal of Interpersonal Violence*, 36(11–12), 5795–5812. <https://doi.org/10.1177/0886260518807910>
- Walker, L. E. (1979). Battered women: A psychosociological study of domestic violence. *Psychology of Women Quarterly*, 4(1), 136–138. <https://doi.org/10.1177/036168438000400101>

- Wessells, M., & Kostelny, K. (2022). The psychosocial impacts of intimate partner violence against women in LMIC contexts: Toward a holistic approach. *International Journal of Environmental Research and Public Health*, 19(21), 14488. <https://doi.org/10.3390/ijerph192114488>
- World Health Organization (WHO). (2020a). *Spanish\_Colombian\_WHOQOL-BREF*. <https://www.who.int/tools/whoqol/whoqol-bref/docs/default-source/publishing-policies/whoqol-bref/spanish-colombian-whoqol-bref>
- World Health Organization. (2020b). *Basic documents: Forty-ninth edition (including amendments adopted up to 31 May 2019)* (pp. 1–244).
- World Health Organization. (2021). *Devastatingly pervasive: 1 in 3 women globally experience violence*. [www.who.int](http://www.who.int); World Health Organization. <https://www.who.int/news/item/09-03-2021-devastatingly-pervasive-1-in-3-women-globally-experience-violence>
- World Medical Association. (2022). *WMA—the World Medical Association-WMA Declaration of Helsinki—Ethical Principles for Medical Research Involving Human Subjects*. [Wma.net](http://wma.net); WMA—the World Medical Association-WMA Declaration of Helsinki—Ethical Principles for Medical Research Involving Human Subjects. <https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/>

## Author Biographies

**Alexandra Yakeline Meneses**, MSc, is a Professor at Universidad de Las Américas in Quito, Ecuador. She has been working on issues of violence against women for 10 years and is an expert psychologist within the Council of the Judiciary

**Anabela Galárraga**, MSc, is a Professor at Universidad Técnica del Norte, Ibarra, Ecuador. Her experience focuses on topics related to neuropsychology and education. Currently, she manages various projects in connection with society.

**Ana Poenitz**, PhD, is a Professor at Universidad de Israel in Quito, Ecuador. Her experience focuses on topics related to neuropsychology and education. Currently, she manages various projects related to society, including issues on gender violence.

**Mercè Jodar**, PhD, is a Professor at Universitat Autònoma de Barcelona. At the moment she is working at Neurology Service in Parc Taulí Hospital, Sabadell (Spain). She is an expert in neuropsychology who has made scientific publications in the field of mental health.