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ORIGINAL PAPER

Gender and Violence in the Daily Routine of Community Health Workers in Fortaleza, Brazil

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Abstract
Community Health Workers (CHWs) are the link between the Brazilian primary health care system and the community. Since CHWs live in the same neighborhoods they work, they are involved in what happens in the community, including observants and or potential targets of violence. However, it is not known if female and male CHWs perceive and suffer violence similarly. This study aimed to investigate the violence to which CHWs are exposed and if female CHWs experience and or perceive violence the same way as male CHWs. A structured questionnaire was used to collect information from CHWs. Two periods (2019 [n=1402] and 2021 [n=364]) were compared. The data show that more than 80% of CHWs were exposed to violence, either as victims or witnesses within the community they served. In general, while the occurrence of violence towards CHWs decreased, their perception of community violence increased. Over time, the perception of urban/community violence remained constant among male CHWs, but increased among female CHWs, as shown by the significant rise between 2019 and 2021 in the percentage of female CHWs reporting witnessing or hearing about manifestations of violence (e.g., physical aggression; assault; stabbing; lethal gunshot; non-lethal gunshot; and gang violence). Among male CHWs, perception only increased with regard to the item assault. Given the complexity of violence and its repercussions on the daily routines of CHWs, intersectoral and interdisciplinary partnerships between health workers and other stakeholders are needed to create strategies capable of dealing with expressions of violence in the territories served.

Keywords Violence · Primary Health Care · Community Health Worker · Gender · Violence exposure

Introduction

A biopsychosocial phenomenon, violence may be defined as the hurtful outcome of conflicting social forces. The World Health Organization (WHO) defines it as "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation" [1].

The growing incidence of violence, especially in larger urban centers, is instilling fear and insecurity in the population and fanning mistrust and social isolation. Violence also affects individual and collective health, creating a demand for targeted public policies and the implementation of services for the prevention and treatment of injury [2].

While violence pervades all social spheres, its effects are more severe and lasting in populations historically marginalized and vulnerable, such as Blacks, women and indigenous people [3]. Gender-related violence, according to Lira and colleagues [4], does not depend on social class, ethnicity, religion, or culture. However, gender-related violence

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against women does seem to manifest in forms dependent on the social class, ethnicity, or religion to which the victim belongs, and tends to have more severe consequences for socially vulnerable individuals, such as Black and/or poor women [5].

The empowerment of Brazilian Primary Health Care (APS) through the Family Health Strategy (FHS) was an important initiative of the Unified Health Care System (SUS), making it possible to reshape the model of care. The FHS facilitates the interaction between healthcare professionals and the population in multiple dimensions and addresses the problem of community violence from the perspective of both public health [6] and occupational health, considering the alarming increase in the exposure of healthcare workers to violence in the communities they serve [7]. Community health workers (CHWs) reporting to FHS teams hold a key responsibility in the identification of cases of violence, in the provision of care to victims, and in the development of strategies to prevent and combat violence [8].

CHWs are the link between the FHS and the community of potential primary care users. When trust exists, CHWs can detect cases of violence in the community during activities of health promotion, disease prevention, health surveillance, and in home- or community-based health education activities [4, 9]. However, since CHWs live in the neighborhoods they serve and are familiar with the residents, they also become potential targets of violence, making preventive measures more difficult. Indeed, many CHWs report experiencing insecurity and apprehension in their daily work, especially in neighborhoods with high crime rates [10].

Violence in the community affects health workers' activities supporting families and at-risk groups [11]. According to Velloso and coworkers [6], manifestations of violence can interfere with the work of FHS teams to the point of distorting the original purpose of the strategy. This reflects health workers' lack of ability to deal with violent behaviors, with emphasis on women as the most vulnerable group. FHS teams are predominantly staffed by women, and women are culturally more susceptible to gender-related aggression.

A quantitative study [12] on the working conditions of CHWs in a Brazilian municipality (90.25% of whom were female) revealed a 60.98% prevalence of violence in the workplace, especially verbal aggression (54%) and moral harassment (11.55%). The main aggressors were patients (53.9%) and their relatives (7.69%). The victims reported feelings of sadness, low self-esteem, irritation, fear of or aversion to aggressors, anger, shame, humiliation, and disappointment. The authors highlighted the need for implementing programs of violence prevention in the workplace to improve the CHWs' health and quality of work and, hence, the quality of the health services provided.

A recent study on the causes and implications of violence for health care services and workers and the relationship between violence and the vulnerability of specific community groups [13] described the importance of countering violence in the workplace and proposed to identify the groups and actors involved in order to share experience and knowledge of violence in the workplace, encourage the production of knowledge and information on work-related violence, foster the development of new initiatives, and add the topic of work-related violence to existing programs for the mitigation of social violence. In this scenario, it is important to ask the question of how gender-related violence affects practices and interactions in public health care [14].

The exposure of CHWs to violence in their daily routine in the community raises at least two questions that we will attempt to answer in this study: (i) When working in vulnerable communities, are female CHWs more exposed to violence than male CHWs? and (ii) Is violence perceived or experienced the same way by female and male CHWs?

To address these questions, we collected information on the prevalence of violence received or perceived by CHWs in their daily work and evaluated the influence of gender on the experience or perception of violence at two points in time. The study contributes to the debate on community violence targeting health workers and provides support for the formulation of public anti-violence policies.

Methods

This study was quantitative and analytical, covering FHS teams from 119 territories in the six subprefectures (SER 1–6) of Fortaleza (the capital of Ceará, a state in Northeastern Brazil). Fortaleza, a coastal city with a total area of 312,441 km^2 and about 2.5 million inhabitants, was considered the 9th most violent city in the world in 2018 [15]. According to data from the Brazilian Year Book of Public Security, Ceará experienced a 14.2% increase in intentional violent deaths (IVD) between 2020 and 2021, while the country's overall IVD rate decreased by 9.3%. In the same period, Fortaleza's IVD rate fell from 48.5 to 34.3 per 100,000 inhabitants (a 29.3% reduction), but other indicators point to an increase in violence. For example, assault and femicide increased by 57.4% and 24.2%, respectively [16].

Two periods were compared in this study: 2019 and 2021. The year 2020 was not included in the sample due to difficulties in collecting information during the lockdown period associated with the Covid-19 pandemic. Thus, the sample reflects the situation before the lockdown and one year into the Covid-19 outbreak.

In the first period (2019), we conducted a population study inviting all CHWs meeting the inclusion criteria to participate. In 2021, we used a simple, random sample calculation considering the distribution of CHWs in different SERs, age brackets, and social strata. This approach made it possible to build a representative sample of CHWs from the city of Fortaleza.

The inclusion criteria were (i) having worked on an FHS team for at least 1 year, and (ii) having worked as a CHW during the period covered by the study. CHWs on vacation or leave during the period covered by the study were not eligible. Likewise, CHWs absent from their workplace (primary care facilities) on three successive contact attempts were excluded. Thus, out of approximately 2,000 CHWs in Fortaleza, 1,402 participated in the first part of the study (2019). The second part of the study (2021) used a sample of 364 CHWs representative of the study population. The random sample calculation considered the following parameters: number of CHWs in Fortaleza in January 2021 (n = 2,093), 5% sample error, 95% level of confidence, and heterogeneous distribution (50/50) of the study population. This yielded a sample of 327 CHWs for the city of Fortaleza.

A structured questionnaire was used to collect information on sociodemographic characteristics and types of urban/community violence received (victims) or perceived (witnessed or heard about) by the CHWs, including physical aggression, assault, stabbing, gunshots, rape, and gang attacks. For the year 2019, we also evaluated domestic violence committed by the CHWs' domestic partners by collecting information on bodily aggression (e.g., slaps, pushes, kicks, strangling attempts), humiliation, insults, and non-consensual sexual intercourse.

The data were submitted to descriptive and comparative analysis using the software Stata (version 14.0). The variables were expressed as relative and absolute frequencies, while associations between categorical variables were verified with the chi-square test. The study protocol was approved by the ethics committee of the Ceará State University (UECE) and filed under entry #4.587.955.

Results

In 2019, the questionnaire was completed by 1,402 CHWs, 1,165 of whom worked and resided in the same neighborhood. In 2021, 364 CHWs participated, including 299 who worked and lived in the same area.

The information collected in the first period (2019) shows that most CHWs were women (81%), Black or indigenous race (87.52%), aged between 40 and 59 years (64.76%), lived with a partner (52.20%), had completed high school (59.42%), lived and worked in the same neighborhood (83.81%), and had been a CHW for 20 years or longer (74.35%). The information collected in the second period (2021) also revealed a predominance of CHWs of the female sex (82.69%), Black or indigenous race (87.85%), age between 40 and 59 years (72.25%), living with a partner (56.32%), complete high school education (44,51%), living and working in the same area (82.39%), and having worked as a CHW for 20 years or longer (79.07%) (Table 1).

The level of schooling of both sexes was predominantly high school in 2019, but in 2021 the majority had or were pursuing a college degree. The increase in schooling between 2019 and 2021 was significant for both men ($p = 0.020$) and women ($p < 0.001$). The number of CHWs with higher education (complete or in progress) increased by 12.38% (women) and 17.04% (men).

The collected data show that CHWs were highly exposed to violence (> 80%), whether as victims or as witnesses, in their daily routine within the community served. Based on the significant variables observed, and when analyzing the CHWs as one group (not segregated by gender), the prevalence of perceived urban/community violence (witnessing or hearing reports) increased from 2019 to 2021 with regard to the items: assault, non-lethal gunshots, lethal gunshots, and gang violence. The prevalence of received violence decreased over the same period for physical aggression, assault, stabbing, non-lethal gunshots, and gang violence (p total per year in Table 2). Thus, in general, while the self-reported occurrence of violence against CHWs decreased, their perception of violence in the community increased.

When the two sexes were compared for the year 2019 (p gender 2019 in Table 2), no significant differences were observed for either received or perceived urban/community violence. The same occurred when the two sexes were compared for the year 2021 (p gender 2021 in Table 2). However, when the two periods were compared (2019 vs. 2021) for each sex, male and female CHWs differed with regard to perceived urban/community violence (p year male; p year female in Table 2). The data show that female CHWs reportedly suffered less physical aggression, assault, stabbing, non-lethal gunshots and gang violence in 2021 than in 2019, despite having witnessed more physical aggression, assault, stabbing, non-lethal gunshots, lethal gunshots and gang violence in 2021. Male CHWs reportedly suffered less physical aggression, non-lethal gunshots and gang violence in 2021 than in 2019, but also reported witnessing more assaults.

Thus, while received violence decreased for both sexes between 2019 and 2021, the same was not observed for perceived urban/community violence, indicating that witnessing or learning about urban/community violence in the territory was perceived differently by male and female CHWs. In general, the perception of urban/community violence remained constant among male CHWs, but increased

Table 1 Sociodemographic variables of the sample of CHWs. Fortaleza, 2019; 2021

Variable	2019				2021					
	Male	**Female**	**Total**	**p gender**	**Male**	**Female**	**Total**	**p gender**	**p year (male)**	**p year (female)**
Age bracket (N = 1294/364) < 40 years 40–59 years ≥ 60 years	87 (34.94%) 149 (59.84%) 13 (5.22%)	264 (25.26%) 689 (65.93%) 92 (8.8%)	351 (27.13%) 838 (64.76%) 105 (8.11%)	0.004	17 (26.98%) 46 (73.02%) -	65 (21.59%) 217(72.09%) 19 (6.31%)	82(22.53%) 263(72.25%) 19(5.22%)	0.098	0.060	0.113
Domestic partner (N = 1387/364) No Yes	104 (39.85%) 157 (60.15%)	559(49.64%) 567(50.36%)	663 (47.80%) 724 (52.20%)	0.004	27(42.86%) 36(57.14%)	132(43.85%) 169(56.15%)	159(43.68) 205(56.32%)	0.855	0.662	0.074
Race (1402/362) Black/ indigenous Other	48(18.05%) 218(81.95%)	127(11.18%) 1009(88.82%)	175 (12.48%) 1227(87.52%)	0.002	7(11.11%) 56(88.89%)	37(12.37%) 262(87.63%)	44(12.15%) 318(87.85%)	0.780	0.185	0.563
Schooling (N = 1402/364) High school incomplete High school College degree or in progress	19(7.14%) 153(57.52%) 94(35.34%)	72(6.34%) 68(59.86%) 384(33.60%)	91(6.49%) 833(59.42%) 478(34.09%)	0.755	6(9.52%) 24(38.10%) 33(52.38%)	24(7.97%) 138(45.85%) 139(46.18%)	30(8.24%) 162(44.51%) 172(47.25%)	0.527	0.020	< 0.001
Income (N = 1326/326) ≤ 2 minimum wages > 2 minimum wages	145(58.94%) 101(41.06%)	735(68.06%) 345(31.94%)	880(66.37%) 446(33.63%)	0.006	28(50%) 28(50%)	171(63.33%) 99(36.67%)	199(61.04%) 127(38.96%)	0.063	0.222	0.140
Children (N = 1401/360) No Yes	72(27.07%) 194(72.93%)	225(19.82%) 910(80.18%)	297(21.10%) 1104(78.8%)	0.009	17(26.98%) 46(73.02%)	60(20.20%) 237(79.80%)	77(21.39%) 283(78.61%)	0.233	0.989	0.884
Has another job (N = 1391/301) No Yes	229(86.74%) 35(13.26%)	1030(91.39%) 97(8.61%)	1259(90.51%) 132(9.49%)	0.020	56(88.89%) 7(11.11%)	273(90.70%) 28(9.30%)	329(90.38%) 35(9.62%)	0.658	0.647	0.705
Lives and works in the same neighborhood (N = 1390/364) No Yes	45(17.31%) 215(82.69%)	180(15.93%) 950(84.07%)	225(16.19%) 1165(83.81%)	0.586	12((19.05%) 51(80.95%)	53(17.61%) 248(82.39%)	65(17.86%) 299(82.14%)	0.786	0.745	0.705

among female CHWs, as shown by the significant rise between 2019 and 2021 in the percentage of female CHWs reporting witnessing or hearing about manifestations of violence (physical aggression [$p = 0.015$], assault [$p = 0.011$], stabbing [$p = 0.040$], lethal gunshots [$p < 0.001$], non-lethal gunshots [$p = 0.008$], and gang violence [$p = 0.053$]). Among male CHWs, perception only increased with regard to the item 'assault'.

In addition to urban/community violence, the spectrum of domestic violence, from insult to forced/humiliating sexual practices, suffered by CHWs was investigated in 2019. Female CHWs suffered sexual violence more often than men, with a significant gender difference for the variables 'forced into sexual intercourse by partner' ($p = 0.011$) and 'agreed to sexual intercourse for fear of what partner might do' ($p = 0.023$). The variable 'belittled or humiliated by partner' was also reported more frequently by female CHWs, with a trend toward significance ($p = 0.071$) (Table 3).

Table 2 Violence received or perceived by CHWs. Fortaleza. 2019; 2021

Variable	2019				2021						
	Male	**Female**	**Total**	**p gender 2019**	**Male**	**Female**	**Total**	**p gender 2021**	**p year (male)**	**p year (female)**	**p total per year**
Witnessed physical aggression				0.330				0.195	0.555	0.015	0.058
(N = 1233/356)											
No	85(34.69%)	376(38.06%)	461(37.39%)		24 (38.71%)	89 (30.27%)	113(31.74%)				
Yes	160(65.31%)	612(61.94%)	772(62.61%)		38 (61.29%)	205(69.73%)	243(68.26%)				
Suffered physical aggression (N = 951/326)				0.627				0.794	0.027	< 0.001	< 0.001
No	81 (42.19%)	335(44.14%)	416(43.74%)		33(58.93%)	154(57.04%)	187(57.36)				
Yes	111 (57.81%)	424(55.86%)	535(56.26%)		23(41.07%)	116(42.96%)	139(42.64)				
Witnessed assault				0.882				0.430	0.012	0.011	0.011
(N = 1226/354)		1									
No	47 (19.42%)	87(19.00%)	234(19.09)		10(16.39%)	37(12.63%)	47(13.28%)				
Yes	195 (80.58%)	797(81.00%)	992(80.91%)		51(83.61%)	256(87.37%)	307(86.72%)				
Suffered assault				0.279				0.161	0.076	0.031	0.008
(N = 1089/335)											
No	39(19.70%)	147(16.50%)	186(17.08%)		17(30.91%)	62(22.14%)	79(23.58%)				
Yes	159(80.30%)	744(83.50%)	903(82.92%)		38(69.09%)	218(77.86%)	256(76.42%)				
Witnessed stabbing				0.758				0.110	0.419	0.040	0.108
(N = 1229/350)											
No	164(68.91%)	693(69.93%)	857(69.73%)		46(74.19%)	183(63.54%)	229(65.43%)				
Yes	74(31.09%)	298(30.07%)	372(30.27%)		16(25.81%)	105(36.46%)	121(34.57%)				
Suffered stabbing				0.481				0.607	0.110	0.001	< 0.001
(N = 939/319)											
No	133(73.48%)	537(70.84%)	670(71.35%)		47(83.93%)	213(80.99%)	260(81.50%)				
Yes	48(26.52%)	221(29.16%)	269(28.65%)		9(16.07%)	50(19.01%)	59(18.50%)				
Witnessed non-lethal gunshot (N = 1223/324)				0.666				0.116	0.622	0.008	0.025
No	95(40.77%)	419(42.32%)	514(42.03%)		27(44.26%)	98(33.68%)	125(35.51%)				
Yes	138(59.23%)	571(57.68%)	709(57.97%)		34(55.74%)	193(66.32%)	193(64.49%)				
Suffered non-lethal gunshot (N = 987/324)				0.994				0.947	0.040	< 0.001	< 0.001
No	88(46.07%)	367(46.11%)	455(46.10%)		34(61.82%)	165(61.34%)	199(61.42%)				
Yes	103(53.93%)	429(53.89%)	532(53.90%)		21(38.18%)	104(38.66%)	125(38.58%)				
Witnessed lethal gunshot				0.746				0.409	0.305	< 0.001	< 0.001
(N = 1203/353)											
No	116(50%)	497(51.18%)	613(50.96%)		26(42.62%)	108(36.99%)	134(37.96%)				
Yes	116(50%)	474(48.82%)	590(49.04%)		35(57.38%)	184(63.01%)	219(62.04%)				
Witnessed rape				0.053				0.103	0.999	0.143	0.138
(N = 1213/351)											
No	192(80.33%)	724(74.33%)	916(75.52%)		49(80.33%)	203(70%)	252(71.79%)				
Yes	47(19.67%)	250(25.67%)	297(24.48%)		12(19.67%)	87(30%)	99(28.21%)				
Suffered rape				0.496				0.958	0.613	0.053	0.050

Table 2 (continued)

Variable	2019				2021					
	Male	Female	Total	p gender 2019	Male	Female	Total	p gender 2021	p year (male)	p year (female)	p total per year
(N = 945/322)											
No	153(80.95)	595(78.70%)	748(79.15%)		47(83.93%)	224(84.21%)	271(84.16%)				
Yes	36(19.05%)	161(21.30%)	197(20.85%)		9(16.07%)	42(15.79%)	51(15.84%)				
Witnessed gang violence				0.136				0.171	0.855	< 0.001	< 0.001
(N = 1215/355)											
No	77(33.19%)	378(38.45%)	455(37.45%)		21(34.43%)	76(25.85%)	97(27.32%)				
Yes	155(66.81%)	605(61.55%)	760(62.35%)		40(65.57%)	218(74.15%)	258(72.68%)				
Suffered gang violence				0.236				0.878	0.019		< 0.001
(N = 974/325)	73(37.06%)	324(41.70%)	397(40.76%)		31(54.39%)	151(56.34%)	182(56%)				
No											
Yes	124(62.94%)	453(58.30%)	577(59.24%)		26(45.61%)	117(43.66%)	143(44%)				

Discussion

The sampled CHWs were found to be highly exposed to violence (> 80%), whether as victims in the workplace and at home or as witnesses within the community served. Moreover, between 2019 (before the Covid-19 pandemic) and 2021 (a year into the pandemic) the prevalence of perceived urban/community violence (physical aggression, assault, stabbing, lethal and non-lethal gunshots, and gang violence) increased among female CHWs, but remained practically unchanged (with the exception of 'assault') among male CHWs, indicating a gender-related difference for this variable. According to Scott [17], to be male or female implies different ways of perceiving and being in the world, both physically and symbolically. Da Costa and colleagues [18] described gender relations as dialectic, reflecting contradictions and different conceptions internalized by social actors of both sexes. Consequently, men and women experience situations and relationships differently—an effect exacerbated by the gender inequality of contemporary society. These differences may help explain the increased perception of violence among female CHWs in the period analyzed.

While the vulnerability of women to violence tends to be strongly impacted by disasters or crises (such as the Covid-19 pandemic) [19], preexisting social inequalities may also have contributed to the perception of violence reported in this study [20]. Thus, the increased perception of violence among female CHWs from 2019 to 2021 (prior to and during the Covid-19 pandemic) may be related to their lifelong exposure to violence and the prevailing culture according to which women are presumed be more aware/sensitive of others' needs [14, 21]. Other studies have reported an increase in exposure to gender-related violence during the Covid-19 pandemic, with indicators gaining national attention. This is supported by the Brazilian Yearbook of Public Safety, which reports 0.7% more femicides in 2020 (n = 1350) than in 2019 [22]. Similarly, UN Women Brazil also concluded that the pandemic worsened life and work conditions and increased cases of gender-related violence against women and girls [23].

In addition to registering a gender-related difference in the perception of violence, our study revealed a high percentage of exposure to violence (suffered or witnessed) among CHWs (> 80%). The close contact of CHWs with the population during home visits and other activities in the community facilitates detecting cases of violence. CHWs often hear reports of violence against members of the community and occasionally witness episodes [6]. Over 80% of the CHWs included in this study worked and lived in the same neighborhood, favoring interactions with the community, and over 80% reported receiving or perceiving violence (witnessing, hearing about, or being subjected to some

Table 3 Violence received by CHWs from domestic partners. Fortaleza, 2019

Variable	2019				
Has your partner ever (…)	**Male**	**Female**	**Total**		**p**
Insulted you or made you feel very uncomfortable (N = 1319)					
No	213 (84.52%)	878 (82.29%)	1091 (82.71%)		0.398
Yes	39 (15.498%)	189 (17.71%)	228 (17.29%)		
Belittled or humiliated you (N = 1318)					
No	234 (92.86%)	949 (89.02%)	1183 (89.76%)		0.071
Yes	18 (7.14)	117 (10.98%)	135 (10.24%)		
Scared or intimidated you (N = 1313)					
No	232 (92.43%)	969 (91.24%)	1183 (89.76%)		0.545
Yes	19 (7.57%)	93 (8.76%)	135 (10.24%)		
Hurt you or someone you like (N = 1310)					
No	224 (89.60%)	952 (89.81%)	1176 (89.77%)		0.921
Yes	26 (10.40%)	108 (10.19%)	134 (10.23%)		
Slapped you or thrown things at you (N = 1316)					
Não	229 (91.24%)	989 (92.86%)	1218 (92.55%)		0.377
Sim	22 (8.76%)	76 (7.14%)	98 (7.45%)		
Pushed you (N = 1316)					
No	237 (94.05%)	969 (91.07%)	1206 (91.64%)		0.125
Yes	15 (5.95%)	95 (8.93%)	110 (8.36%)		
Hurt you with a punch or object (N = 1316)					
No	243 (96.43%)	1024 (96.24%)	1267 (96.28%)		0.887
Yes	9 (3.57%)	40 (3.76%)	49 (3.72%)		
Kicked, dragged, or beaten up (N = 1317)					
No	249 (91.24%)	1042 (97.84%)	1267 (96.28%)		0.320
Yes	3 (1.19%)	40 (3.76%)	49 (3.72%)		
Tried to strangle or burn you (N = 1314)					
No	250 (99.60%)	1052 (98.97%)	1302 (99.09%)		0.340
Yes	1 (0.40%)	11 (1.03%)	12 (0.91%)		
Threatened to use a gun or knife (N = 1317)					
No	247 (98.41%)	1039 (97.47%)	1286 (97.65%)	31 (2.35%)	0.377
Yes	4 (1.59%)	27 (2.53%)			
Forced you into sexual intercourse (N = 1317)					
No	251 (99.60%)	1030 (96.71%)	1281 (97.65%)		0.011
Yes	1 (0.40%)	35 (3.29%)	36 (2.73%)		
Made you agree to sexual intercourse out of apprehension (N = 1317)					
No	251 (99.60%)	1035 (97.18%)	1286 (97.65%)		0.023
Yes	1 (0.40%)	30 (2.82%)	31 (2.35%)		
Forced you to perform humiliating sexual acts (N = 1317)					
No	251 (99.21%)	1045 (98.21%)	1296 (98.41%)		0.256
Yes	2 (0.79%)	19 (1.79%)	21 (1.59%)		

form of violence). Having to remain after work hours in the neighborhood they serve exposes CHWs to a greater risk of violence, extends uncomfortable situations, and fuels apprehension for their lives and those of their relatives. Thus, the proximity of CHWs to families in the community may be an advantage when it comes to detecting and notifying cases of violence, but it also highlights their vulnerability [24].

When working outside the facility, CHWs are exposed to hazards in the community, without the physical and emotional support of the rest of the team. Many consider home visiting an occupational risk factor and some try to avoid this part of the work, especially when they perceive the possibility of witnessing gang shootings and skirmishes [6]. Observers of health problems and occurrences in the community, CHWs represent the health facility and, hence, the State, exercising a certain authority in the community. But they are also under pressure from a local parallel power of which they ignore the rules. In other words, a precarious balance exists between the power of the State and the power of local gangs [6]. As shown by Vieira-Meyer and colleagues [25], the elevated rates of violence restricting home visiting in the neighborhoods covered by CHWs are often associated with factors of vulnerability that feed back into the cycle of violence. Thus, CHWs are most inhibited in territories where the State has less control and where health challenges are particularly severe.

In addition to impacting the health and work routines of CHWs, violence is also injurious to the health of the community. De Souza Campos and Pierantoni [13] pointed out that violence interferes with the settlement of health workers in vulnerable urban areas characterized by crime, insecurity and tension between users and health workers. Many CHWs prefer to move to safer areas, compromising the effectiveness of public policies (and thereby the health of the community) and overburdening the remaining health workers. This tension has a negative impact on workers' mental health [26, 27] and physical health, and this is reflected in their occupational performance [28], very likely affecting the health outcomes of the community they serve.

Recently, Ferreira and colleagues [29] described how some CHWs working in particularly violent communities yield to external pressure and enter a see-no-evil-hear-no-evil agreement to stay away from the police and not report abuse (as they should by law) for fear of hurt to themselves and their families. Although these hazards and the bane of impunity compromise assistance to victims and threaten to cut their bonds to health workers and the local health facility, many CHWs continue detecting and preventing violence and informing victims on how to obtain help through support networks [30].

The findings of this study are relevant and meaningful, despite the existence of limitations. For example, the sample of CHWs used in the present study was restricted to the city of Fortaleza, making it difficult to extrapolate our results. Nevertheless, the study provides ample input for the debate on violence in the daily routine of CHWs and subsidies for the formulation of public policies of prevention and mitigation of violence. Finally, further investigations are needed to clarify to what extent male/female differences in the perception of violence impacts the performance of CHWs in the community.

Conclusion

Our study sheds light on the level of violence (e.g., physical aggression, assault, stabbing, gun shots, rape, and gang violence) to which CHWs are exposed during working hours, either as victims (received) or as witnesses in the community (perceived).

Male and female CHWs perceived violence in the community differently. The latter increased their perception of violence from 2019 to 2021, while perception remained practically unchanged in the former over the same period, possibly due to gender-related differences in the way of perceiving and being in the world.

Given the complexity of violence and its repercussions on the daily routine of CHWs, intersectoral and interdisciplinary partnerships between health workers and other stakeholders are needed to develop strategies capable of dealing with expressions of violence in the territories served.

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References

1. World Health Organization – WHO (2021). *Violence Against women* Available in: https://www.who.int/news-room/fact-sheets/detail/violence-against-women
2. Watts, C., & Zimmerman, C. (2002). Violence against women: global scope and magnitude. *The Lancet*, *359* (9313), 1232–1237. DOI: https://doi.org/10.1016/S0140-6736(02)08221-1. Available in: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(02)08221-1/fulltext
3. Minayo, M. C. S. (2006). *Violência e saúde*. 2ª ed. Rio de Janeiro: FIOCRUZ.
4. Lira, C. E. P., & da Trindade, R. F. C. (2012). Conduta dos agentes comunitários de saúde diante de casos de violência familiar. *Revista Eletrônica de Enfermagem*, *14*(4), 928–936. https://doi.org/10.5216/ree.v14i4.12237. https://revistas.ufg.br/fen/article/view/12237/13358.
5. Waiselfiz, J. J. (2015). *Homicídio de mulheres no Brasil. Mapa da violência 2015* Brasília: Flacso. Available in: https://www.onumulheres.org.br/wp-content/uploads/2016/04/MapaViolencia_2015_mulheres.pdf
6. Velloso, I. S. C., Araujo, M. T., Rocha, A. D. M., & Alves, M. (2005). A visão dos profissionais de saúde sobre a violência no cotidiano de trabalho em uma unidade básica. *Revista Mineira de Enfermagem*, *9* (4), 302–308. Available in: https://cdn.publisher.gn1.link/reme.org.br/pdf/v9n4a03.pdf
7. Contrera-Moreno, L., & Contrera-Moreno, M. I. (2004). Violência no trabalho em enfermagem: um novo risco ocupacional. *Revista Brasileira de Enfermagem*, *57*, 746–749. Available in: https://www.scielo.br/j/reben/a/vByvtmHDCfxxk74CbyGyVSL/?format=pdf&lang=pt
8. Hesler, L. Z., Costa, M. C. D., Resta, D. G., & Colomé, I. C. D. S. (2013). Violência contra as mulheres na perspectiva dos agentes comunitários de saúde. *Revista Gaúcha de Enfermagem*, *34*, 180–186. DOI: https://doi.org/10.1590/S1983-14472013000100023. Available in: https://wwwscielo.br/j/rgenf/a/MWVc63psXP36k7CKSP4YSzp/?format=pdf&lang=pt
9. Brasil (2011). Ministério da saúde. *Secretaria Nacional de Enfrentamento à Violência contra as Mulheres*. Secretaria de Políticas para as Mulheres – Presidência da República. Política Nacional de Enfrentamento à Violência Contra as Mulheres. Brasília, DF. Available in: https://www12.senado.leg.br/institucional/omv/entenda-a-violencia/pdfs/politica-nacional-de-enfrentamento-a-violencia-contra-as-mulheres
10. Lancman, S., Ghirardi, M. I. G., Castro, E. D. D., & Tuacek, T. A. (2009). Repercussões da violência na saúde mental de trabalhadores do Programa Saúde da Família. *Revista de Saúde Pública*, *43*, 682–688. DOI: https://doi.org/10.1590/S0034-89102009005000036. Available in: https://www.scielo.br/j/rsp/a/MDJrcyDxwV6Z7ndxGDL7mHt/?lang=pt
11. Souza, L. J. R., & Freitas, M. C. S. (2011). O Agente Comunitário de Saúde: violência e sofrimento no trabalho a céu aberto. *Rev baiana saúde pública*, *35*(1):96–109. DOI: https://doi.

org/10.22278/2318-2660.2011.v35.n1.a1020. Available in: http://files.bvs.br/upload/S/0100-0233/2011/v35n1/a2100.pdf
12. Minhos, M. B., & Contrera-Moreno, L. (2006). A prevalência da violência no trabalho dos agentes comunitários de saúde do município de Sidrolândia, MS. *Ensaios e Ciência: Ciências Biológicas, Agrárias e da Saúde*, *10*(3), 151–160. Available in: https://www.redalyc.org/pdf/260/26012809015.pdf
13. de Souza Campos, A., & Pierantoni, C. R. (2010). Violência no trabalho em saúde: um tema para a cooperação internacional em recursos humanos para a saúde. *Revista Eletrônica de Comunicação, Informação e Inovação em Saúde*, *4*(1). DOI: https://doi.org/10.3395/reciis.v4i1.709. Available in: https://www.reciis.icict.fiocruz.br/index.php/reciis/article/view/709
14. Almeida, J. F. D., Peres, M. F. T., & Fonseca, T. L. (2019). O território e as implicações da violência urbana no processo de trabalho dos agentes comunitários de saúde em uma unidade básica. *Saúde e Sociedade*, *28*, 207–221. DOI: https://doi.org/10.1590/S0104-12902019170543. Available in: https://www.scielo.br/j/sausoc/a/8MJnfvZVYsNdDMqqSq3nHYC/?format=pdf&lang=pt
15. Cerqueira, D., Bueno, S., Lima, R. S., Neme, C., Ferreira, H., Alves, P. P., Marques, D., Cypriano, R. E. I. S. M., Sobral, O., Pacheco, I., Lins, D., & Armstrong, G. (2019). K *Atlas da violência 2019*. Brasília: Instituto de Pesquisa Econômica Aplicada/São Paulo: Fórum Brasileiro de Segurança Pública; 2019. Available in: https://www.ipea.gov.br/atlasviolencia/download/19/atlas-da-violencia-2019
16. Fórum Brasileiro de Segurança Pública – FBSP (2022). *Anuário Brasileiro de Segurança Pública*. Available in: https://forumseguranca.org.br/wp-content/uploads/2022/06/anuario-2022.pdf?v=5
17. Scott, J. (1995). Gênero: uma categoria útil de análise histórica. *Educação e Realidade*, *16*(2), 5–22.
18. da Costa, R. G., de Madeira, M. Z., & Silveira, C. M. H. (2012, dezembro). *Relações de gênero e poder: tecendo caminhos para a desconstrução da subordinação feminina*. In 17º Encontro Nacional da Rede Feminista Norte e Nordeste de Estudos e Pesquisa sobre a Mulher e Relações de Gênero.
19. Alston, M. (2013). Environmental social work: Accounting for gender in climate disasters. *Australian Social Work*, *66*(2), 218–233. https://doi.org/10.1080/0312407X.2012.738366. https://www.researchgate.net/publication/263538061_Environmental_Social_Work_Accounting_for_Gender_in_Climate_Disasters.
20. Horton, L. (2012). After the earthquake: gender inequality and transformation in post-disaster Haiti. *Gender & Development*, *20*(2), 295–308. DOI: https://doi.org/10.1080/13552074.2012.693284. Available in: https://www.tandfonline.com/doi/pdf/10.1080/13552074.2012.693284?needAccess=true
21. Angelo, M. (2009). Cultura e cuidado da família. In E. Nakamura, D. Martin, & J. F. Q. Santos (Eds.), *Antropologia para enfermagem*. São Paulo, SP: Manole.
22. Fórum Brasileiro de Segurança Pública – FBSP (2021). *Anuário Brasileiro de Segurança Pública*. Available in: https://forumseguranca.org.br/wp-content/uploads/2021/07/anuario-2021-completo-v4-bx.pdf
23. ONU Mulheres Brasil (2020). *Violência contra mulheres e meninas é pandemia invisível, afirma diretora executiva da ONU Mulheres*. Brasília (DF): *ONU Mulheres Brasil*. Available in: https://www.onumulheres.org.br/noticias/violencia-contra-as-mulheres-e-meninas-e-pandemia-invisivel-afirma-diretora-executiva-da-onu-mulheres/
24. Garbin, C. A. S., Melo, L. M. L. L., Moimaz, S. A. S., Garbin, A. J. L., & Rovida, T. A. S. (2014). Violência intrafamiliar na rotina do agente comunitário de saúde. *J Health Sci Inst*, *32*(4), 385–389. Available in: https://livrozilla.com/doc/259697/viol%C3%AAncia-intrafamiliar-na-rotina-do-agente-comunit%C3%A1rio-de
25. Vieira-Meyer, A. P. G. F., Morais, A. P. P., Campelo, I. L. B., & Guimarães, J. M. X. (2021). Violência e vulnerabilidade no território do agente comunitário de saúde: implicações no enfrentamento da COVID-19. *Ciência & Saúde Coletiva*, *26*, 657–668. Available in: https://www.scielo.br/j/csc/a/MhZNVSqpns8H7Kkxh5p7W5Q/?format=pdf&lang=pt
26. Pai, D. D., Lautert, L., Souza, S. B. C. D., Marziale, M. H. P., & Tavares, J. P. (2015). Violência, burnout e transtornos psíquicos menores no trabalho hospitalar. *Revista da Escola de Enfermagem da USP*, *49*, 457–464. DOI: https://doi.org/10.1590/S0080-623420150000300014. Available in: https://www.lume.ufrgs.br/bitstream/handle/10183/129470/000975217.pdf?sequenc
27. Itzhaki, M., Peles-Bortz, A., Kostistky, H., Barnoy, D., Filshtinsky, V., & Bluvstein, I. (2015). Exposure of mental health nurses to violence associated with job stress, life satisfaction, staff resilience, and post-traumatic growth. *International journal of mental health nursing*, *24*(5), 403–412. https://doi.org/10.1111/inm.12151. https://onlinelibrary.wiley.com/doi/epdf/10.1111/inm.12151.
28. Ünsal, A. S., Baysan, A. L., Sirin, A., Isler, A., Donmez, S., Unsal, G. M., Oflaz, R. N. G., Yalcinkaya, O. R. N., & Yazar, T. F. (2013). Violence experienced by nurses at six university hospitals in Turkey. *Journal of psychiatric and mental health nursing*, *20*(10), 882–889. https://doi.org/10.1111/jpm.12027. https://onlinelibrary.wiley.com/doi/epdf/10.1111/jpm.12027.
29. Ferreira, C. M., Da Silva, M. R. F., Pessoa, V. M., & Nuto, S. D. A. S. (2021). As estratégias de sobrevivência à violência utilizadas pelos agentes comunitários de saúde. *Revista Brasileira em Promoção da Saúde*, *34*. DOI: https://doi.org/10.5020/18061230.2021.11152. Available in: https://periodicos.unifor.br/RBPS/article/view/11152,17/02/2021
30. Freitas, M. A., Magalhães, B. C., Pinheiro, D. F., Melo, S. A., Feitosa, F. A. A., Souza, K. B., Lima, L. X., Noronha, M. L. A., Freitas, M. A., Tavares, N. B. F., & Alcântara, P. P. T. (2021). *Fragilidades vivenciadas pelo agente comunitário de saúde na abordagem em casos de violência contra mulher*. In: Santana, R. S. (Org). A Saúde Pública em contexto multidisciplinar. Teresina: Literacia Científica Editora & Cursos, 2021, p. 01–11. DOI: https://doi.org/10.53524/lit.edt.978-65-995572-5-5/01. Available in: https://literaciacientificaeditora.com.br/post-artigo/?artigo=38