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Armed violence and quality of life: a cross-sectional study in the Family Health Strategy

Violência armada e qualidade de vida: um estudo seccional na Estratégia Saúde da Família

Violencia armada y calidad de vida: un estudio seccional en la estrategia de salud de la família

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ABSTRACT

Objective: to assess the quality of life of Family Health Strategy (ESF) users in the context of urban violence. **Method:** this cross-sectional study of 93 ESF users, conducted in 2020 in the Rio de Janeiro metropolitan region, was approved by the research ethics committees of the Anna Nery School and the Rio de Janeiro Municipal Health Department. One limitation was the impossibility of establishing a temporal relationship between exposure and outcome. **Results:** the social relationships domain returned the highest median (75.00), followed by the psychological domain (66.67), the physical domain (60.71) and finally the environment domain (56.25) ($p < 0.001$). **Conclusion:** the lowest average in the environment domain corresponded to the worst perceptions of quality of life in view of health conditions associated with violence in the territory, which harmed the subjects' health and quality of life.

Descriptors: Violence; Quality of Life; Public Policy; Nursing.

RESUMO

Objetivo: avaliar a qualidade de vida dos usuários da Estratégia Saúde da Família (ESF) no contexto da violência urbana**. Método:** estudo transversal realizado com 93 usuários da ESF, em 2020, na região metropolitana do Rio de Janeiro. Como limitação apresenta-se impossibilidade de estabelecer uma relação temporal entre a exposição e o desfecho. Pesquisa aprovada pelos Comitês de Ética em Pesquisa (CEP) da Escola Anna Nery e, da Secretaria Municipal de Saúde da Prefeitura do Rio de Janeiro. **Resultados:** o domínio de relações sociais foi o de maior mediana (75,00), seguido do domínio psicológico (66,67), domínio físico (60,71) e por último o domínio de meio ambiente (56,25), valor de $p < 0,001$. **Conclusão:** a menor média no domínio ambiente relaciona-se as piores percepções de qualidade de vida com condições de saúde associadas à violência no território, que traz danos à saúde e a qualidade de vida dos sujeitos.

Descritores: Violência; Qualidade de Vida; Política Pública; Enfermagem.

RESUMEN

Objetivo: evaluar la calidad de vida de los usuarios de la Estrategia Salud de la Familia (ESF) en el contexto de violencia urbana. **Método:** Estudio transversal realizado junto a 93 usuarios del ESF, en 2020, en la región metropolitana de Río de Janeiro. Una limitación es la imposibilidad de establecer una relación temporal entre la exposición y el resultado. Investigación aprobada por los Comités de Ética en Investigación (CEI) de la Escuela Anna Nery y de la Secretaría Municipal de Salud de la Ayuntamiento de Rio de Janeiro. **Resultados**: el dominio de relaciones sociales fue el de más alta mediana (75,00), seguido del dominio psicológico (66,67), el dominio físico (60,71) y finalmente el dominio ambiental (56,25), valor de $p < 0,001$. **Conclusión:** los promedios más bajos en el dominio ambiental se relacionan con las peores percepciones de Calidad de Vida con condiciones de salud asociadas a la violencia en el territorio, lo que perjudica la salud y calidad de vida de los sujetos.

Descriptores: Violencia; Calidad de Vida; Política Pública; Enfermería.

INTRODUCTION

The World Health Organization (WHO) considers a rate of 10 homicides per 100,000 inhabitants or more as characteristic of endemic violence[1]. In this sense, violence stands out as responsible for a large part of the transformation of the health profile, encompassing broad aspects, ranging from lifestyle to environmental, economic, cultural and social relationships. Given the above, it is there that lies one the challenges of the Unified Health System (*Sistema Único de Saúde*, SUS)[2].

Thus, it is essential to devise strategies in order to maintain living conditions that minimally guarantee health, equality and improvement of Quality of Life (QoL) in the populations[3,4]. This challenge is discussed in the document entitled "Transforming our world: the 2030 Agenda for Sustainable Development", approved by the 193 Member States during the Sustainable Development Summit of the United Nations General Assembly in 2015. The document contains 17 Sustainable Development Goals (SDGs), and goal 16 aims at promoting peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels[5].

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For the monitoring of the SDGs, twelve targets have been set and the first is to significantly reduce all forms of violence and related mortality rates everywhere. In Brazil, goal 16.1 was adequate to our country's reality, including a one-third reduction in the rates of femicides and homicides of children, adolescents, youth, black-skinned individuals, indigenous people, women and the LGBT community.

Therefore, nurses contribute to the progress in the construction of a strong FHS guided by the SUS and play a strategic role in reducing the potential harms to health as a result of violence[6].

In this sense, the reflections on health promotion, quality of life, guarantee of rights and the impacts of urban violence, in the context of the neoliberal and capitalist State (which advocates deregulation of public security policies, in which themes such as illegal weapon control and ammunition are neglected[7]), show the minimization of State intervention, a context in which Brazil is inserted, and they increasingly need to be explored and discussed[8].

To understand this deregulation, a number of studies reveal a significant link between violence and the flexibilization of access to firearms. It is noted that the high number of weapons available to the general population is a risk for an increase in the number of homicides and other crimes with use of firearms, as well as suicides[9,10]. In contrast, the Brazilian government has given priority to policies that result in the armament of the civilian population. In 2019, through a decree, the government allowed the importation of weapons, which had been prohibited until then, ensured an increase in the number of ammunition and allowed open carry in more places than the previous law. In November 2020, it decreed the extinction of the twenty percent (20%) tax collection for the import of guns and pistols as of January 1st, 2021[11,12]. However, the National Policy for the Reduction of Morbidity and Mortality due to Accidents and Violence (*Política Nacional de Redução da Morbimortalidade por Acidentes e Violências*, PNRMAV), which is published in the Ministry of Health's website, recognizes violence as a social and historical problem; in which the milestones of health promotion and quality of life have been included since 2002[13].

Over time, it was also observed that the living conditions were the main causes of the diseases. Therefore, broad social and economic reforms are recommended from the perspective of health care integrality[14,2]. In this way, the nurses' actions cannot be dissociated from their insertion in the social context, which involves dealing with issues such as the right to a decent life, equality and social justice, as well as the reduction of human vulnerabilities[15].

The study objective was to assess quality of life in the Family Health Strategy (FHS) users in the context of urban violence. In order to do so, the WHO-Quality of Life-BREF general survey instrument was chosen, validated for several countries and consisting of 26 items, which allows describing the subjective perception of an individual regarding their physical and psychological health, social relationships and the environment[16].

METHOD

A cross-sectional study conducted with the FHS users in the São Godofredo Public Health Unit, located in the Penha neighborhood, Municipality of Rio de Janeiro, RJ, Brazil. The unit belongs to Programmatic Area (PA) 3.1[17]. In this PA, the communities/neighborhoods that are the object of the management contract are the following: *Ramos, Complexo da Maré, Complexo do Alemão, Vigário Geral, Penha, Penha Circular* and *Ilha do Governador*[17], as shown in Figure 1. Attention is drawn to the scope of action in the territory of the teams of this health unit and to the clipping of the crime map, launched by the Fluminense Research Network on Violence, Security and Rights[18], which did not intend to be a completely accurate portrait of the presence of armed groups in Rio de Janeiro, but enables estimating the dimension of armed territorial control by different groups[18].

This Unit is subdivided into four teams: the Ibiapina FHS team serves 3,955 users; the Iapi FHS team serves 3,978; the Filomena FHS team serves 4,600; and the Bariri FHS team serves 3,824 users, totaling 16,357 users[17]. Thus, sample calculation was performed by multiple linear regression, where it was sought to assess the greatest possible number of predictors. Therefore, seven predictors were used for the calculation, with an 80% test power, 17% effect size and 5% significance level, resulting in a sample of 93 individuals. The *G*Power* program, version 3.1.9.2[19], was used to calculate the sample size.

The representativeness of each team was verified through stratification by proportional allocation, where information was collected from 22 patients from the Ibiapina FHS team, 23 from the Iapi FHS team, 26 from the Filomena FHS team, and 22 from the Bariri FHS team.

The inclusion criteria were being a user of the FHS, being of legal age and showing interest and agreement to participate in the study; and the exclusion criterion was users who were not registered with the unit's FHS teams.

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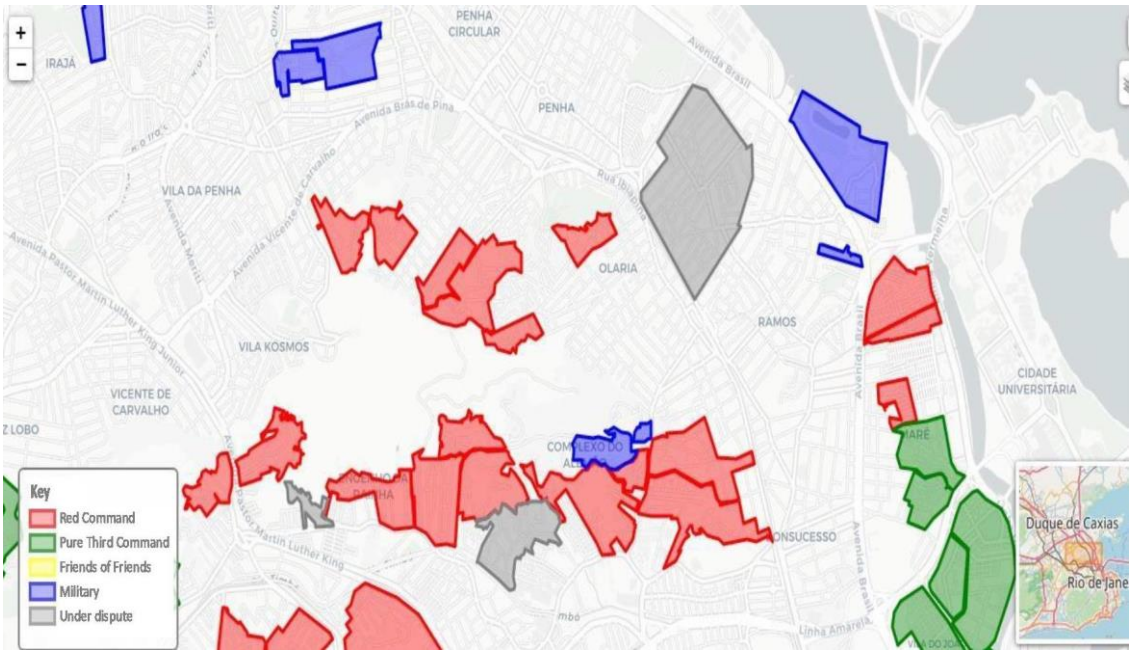

FIGURE 1: Clipping of the map of the Rio de Janeiro armed groups in the region researched and acting scope of the health unit teams in the territory. Rio de Janeiro, RJ, Brazil, 2020.
Key: **o** Red Command, **o** Third Command, **o** Friends of Friends, **o** Military, **o** Under dispute.
Source: *Rede de Observatório de Segurança*, October 2020. Result of a collaboration between the Study Group of New Illegalisms (*Grupo de Estudos dos Novos Ilegalismos*, GENI/UFF), the *Fogo Cruzado* datalab; the Center for the Study of Violence at USP; the *Pista News* digital platform and the Crime-Report Hotline; *São Godofredo* Municipal Health Center.

Data collection took place between June and August 2020 and was planned by the author to be carried out in a private room at the health unit in order to provide a more welcoming and safe environment for the respondents and to better approach the research participants; the concept of Quality of Life and urban violence in the light of the WHO was explained at this moment. However, due to the pandemic scenario imposed by the coronavirus, the author was not able to meet in a group with the participants. Therefore, the approach was conducted individually in the Health Unit's waiting room, which prolonged that stage of the process.

The participants answered a sociodemographic questionnaire adapted from the National Health Survey of the Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística*, IBGE) related to issues of violence; and the Quality of Life analysis was carried out through the WHOQOL-BREF instrument, which assesses the individual's perceptions in the context of their culture and value system, their personal goals, standards and concerns[16].

The IBM SPSS *Statistics* program, version 24, was used for data treatment. Characterization was presented in the form of observed frequency, percentage, minimum and maximum values, and central tendency and variability measures[20].

In the statistical analysis, it is common to find applicability of non-parametric tests; however, it is necessary to assess whether probability distribution is normal before using this technique since, if it is normal, the parametric test is preferable. Therefore, the author applied the *Mann-Whitney* test, which consists of comparing the distribution of two samples, and the *Kruskal-Wallis* test, which allows for the comparison of three or more groups in independent samples. The latter is an extension of the *Wilcoxon-Mann-Whitney*[21] test.

Regarding the non-parametric test, comparisons are made between the median scores of the physical, psychological, social relationships and environment domains and the characteristics and data on urban violence. When the *Kruskal-Wallis* test was significant, Duncan's multiple comparisons test was employed, a procedure widely used for comparing all pairs of means, multiple amplitude test, as well as for testing any and all contrasts between two means[21].

Multiple linear regression with the *Forward* method was applied, which made it possible to use all available independent variables, as well as selection of those that best correlate with the dependent variable through appropriate statistical methods. In this perspective, based on the linear correlation with the dependent variable, the independent variables that best explain the variability of the dependent variable were selected[21].

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In the statistical analysis, the *Forward Stepwise Selection* method, which was the most indicated, associated the domains with the factors that were selected by this method[21]. The significance level used in all the analyses was 5%.

The research was submitted for consideration by the Research Ethics Committees (*Comitês de Ética em Pesquisa*, CEPs) of the institutions involved, being approved with opinions No. 3,828,070 of February 8th, 2020 and No. 33,993,910 of April 27th, 2020, respectively.

RESULTS

The study highlights that 56.99% of the participants suffered violence or aggression by a stranger in the last 12 months prior to collection. Of these, 31.18% indicate that this violence was perpetrated with a firearm; 11.83% with physical force/beating; 10.75% through offensive words, name calling or profanity; 1.08% with a sharp object; and 2.15% did not specify the type of violence.

Regarding the assessment of their health, it is relevant to highlight that 43.01% of the respondents considered having good health, followed by 32.26% who considered having regular health, 15.05% who considered it as very good and 9.68% who considered it as poor. However, in the analysis of quality of life through WHOQOL-Bref, it was evidenced that the environment domain presented the lowest score, followed by the physical and psychological domains, respectively. There was a significant difference between the median scores of the domains, where the social relationships domain had the highest median (75.00), followed by the psychological (66.67), physical (60.71) and, finally, the environment (56.25) domains, as shown in Table 1.

TABLE 1: Comparison between the scores of the Quality of Life (QoL) domains, according to WHOQOL-bref (n=93). Rio de Janeiro, RJ, Brazil, 2020.

	Minimum	Maximum	Median	Mean	Standard Deviation
Physical domain	7.14	92.86	60.71b	59.83	19.70
Psychological domain	4.17	100.00	66.67bc	64.07	17.90
Social relationships domain	0.00	100.00	75.00c	68.91	21.14
Environment domain	15.63	78.13	56.25a	53.80	13.82

Source: Research data.

It is noted that the *Kolmogorov-Smirnov* test was used for the normality test, whose result rejected the null hypothesis. Therefore, the non-parametric techniques were adequate as specifically demonstrated by the domains, namely: Physical domain = statistics 0.120, DoF 93, p-value 0.002; Psychological domain = statistics 0.108, DoF 93, p-value 0.009; Social relationships domain = statistics 0.167, DoF 93, p-value<0.001; Environment domain = statistics 0.112, DoF 93, p-value 0.006.

However, the environment domain presented statistical significance in the sociodemographic questionnaire for the following questions: "How do you assess your health in general terms?" and "Where did that violence occur?" Those who considered their health as very good obtained higher median scores specifically in the environment domain, as shown in Table 2.

There is a significant regression in all four domains; therefore, it was possible to perform inferences and the model's variables were able to explain the scores.

In the physical domain, the adjusted R^2 was 46.2%, of the mean score. The assumptions of absence of multicollinearity (VIF<10), absence of serial autocorrelation (D-W=2.08), normality of residuals (K-S (p)=0.110)) and absence of heteroscedasticity (robust standard error) were met. It is noted that those who reported that their health is bad had the mean score in the physical domain lower than those who reported that their health is very good.

Similarly, the adjusted R^2 was 48.1%, of the mean score in the psychological domain. The assumptions of absence of multicollinearity (VIF<10), absence of serial autocorrelation (D-W=1.86), normality of residuals (K-S (p)=0.200)) and absence of heteroscedasticity (robust standard error) were met. It is revealed that being female reduces the mean score of the psychological domain in comparison to male individuals. The individuals who reported having suffered more severe violence in the last 12 months with a sharp object had their mean domain score increased when compared to those who suffered violence with a firearm. And people who suffered some violence or aggression from someone they know in the last 12 months had a mean increase in the psychological domain score when compared to a person who did not suffer any aggression from someone they know.

In the social relationships domain, the adjusted R^2 was 37.1%, that is, 37.1% of the mean score of this domain. The assumptions of absence of multicollinearity (VIF<10), absence of serial autocorrelation (D-W=1.80), normality of residuals (K-S (p)=0.053)) and absence of heteroscedasticity (robust standard error) were met. In this domain, it is noteworthy that the individuals who reported having suffered more severe violence in the last 12 months with a sharp object had their mean scores increased when compared to those who suffered violence with a firearm.

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TABLE 2: Comparison between the scores of the Quality of Life (QoL) domain and the sociodemographic and urban violence variables, Municipality of Rio de Janeiro, Brazil, 2020 (*N=93)

Variables		N	Physical domain Median	Psychological domain Median	Social relations domain Median	Environment domain Median
Gender	Male		71.43	66.67	75.00	53.13
	Female		60.71	62.50	75.00	56.25
p-value			0.226	0.336	0.644	0.640
Age group	18-19 years old	4	51.79a	58.33	79.17	51.56
	20-29 years old	11	75.00b	66.67	75.00	62.50
	30-39 years old	15	75.00b	70.83	75.00	56.25
	40-49 years old	22	58.93ab	60.42	75.00	50.00
	50-59 years old	21	50.0a	62.50	66.67	53.13
	60-69 years old	15	71.43b	66.67	75.00	50.00
	70-79 years old	5	42.86a	66.67	50.00	62.50
p-value			0.002	0.657	0.396	0.077
Skin color or race (self-declared)	White	47	64.29	70.83	75.00	56.25
	Black	24	67.86	66.67	75.00	54.69
	Brown	22	50.00	56.25	66.67	50.00
p-value			0.223	0.621	0.214	0.517
How do you assess your health in general terms?	Very good	14	71.43b	60.42ab	70.83	62.50b
	Good	40	75.00b	75.00b	75.00	59.38ab
	Fair	30	48.21a	60.42ab	66.67	50.00ab
	Bad	9	46.43a	54.17a	66.67	43.75a
p-value			<0.001	0.001	0.537	0.011
Were you a victim of some type of violence or aggression by a stranger in the last 12 months?	Once	34	69.64ab	68.75	75.00c	56.25
	Twice	10	46.43ab	50.00	75.00c	50.00
	From three to six times	5	42.86a	58.33	50,00b	56.25
	From seven to less than 12 times	1	78.57b	66.67	58.33bc	34.38
	At least once a month	2	71.43b	16.67	8.33a	18.75
	I wasn't a victim of violence	41	57.14ab	66.67	75.00c	56.25
p-value			0.021	0.051	0.035	0.075
Thinking about the most serious type of violence you have suffered by a stranger in the last 12 months, how were you threatened or injured?	With a firearm	29	64.29	62.50	75.00	50.00
	With a sharp object	1	75.00	75.00	75.00	46.88
	With physical force, beating	11	60.71	50.00	66.67	50.00
	Through offensive words	10	75.00	70.83	75.00	59.38
	Other	2	64.29	58.33	70.83	54.69
	I wasn't a victim of violence	40	58.93	66.67	75.00	57.81
p-value			0.172	0.214	0.982	0.282
Thinking about the most serious type of violence you have suffered in the last 12 months, which type was it?	Physical	39	64.29	70.83b	75.00	56.25
	Sexual	4	35.71	50.00a	58.33	62.50
	Psychological	17	71.43	62.50ab	83.33	53.13
	Other	6	53.57	64.58ab	83.33	53.13
	I wasn't a victim of violence	27	60.71	62.50ab	75.00	59.38
p-value			0.226	0.010	0.249	0.386
Where did this violence take place?	Home	20	60.71	64.58	58.33	56.25b
	Work	5	78.57	75.00	83.33	**62.50b**
	School/College or similar	2	69.64	50.00	37.50	21.88a
	Public road	37	60.71	62.50	75.00	50.00ab
	Other	1	57.14	62.50	66.67	43,75ab
	I wasn't a victim of violence	28	60.71	66.67	75.00	57.81b
p-value			0.051	0.203	0.174	0.016

* Variables with two categories (*Mann-Whitney* test), variables with three or more categories (*Kruskal-Wallis* test); abc - Different letters indicate differences between the medians (Duncan's multiple comparisons test)
Source: Research data

However, the adjusted R^2 was 47.7%, that is, 47.7% of the mean score of the environment domain. The assumptions of absence of multicollinearity (VIF<10), absence of serial autocorrelation (D-W=2.26), normality of residuals (K-S (p)=0.097)) and absence of heteroscedasticity (robust standard error) were met. People aged between 70

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and 79 years old have their mean score in the environment domain increased when compared to those aged between 18 and 19 years old. It was observed that those who suffered violence at work had an increased mean score in the environment domain when compared to those who suffered violence in their homes, and that those who suffered violence at school/college and/or similar or elsewhere had a mean reduction in this score when compared to those who suffered violence in their homes.

DISCUSSION

The study compared the median scores of the physical, psychological, social relationships and environment domains with characteristics and data on violence, indicating the lowest mean values in the environment domain and relating the worst perceptions of Quality of Life with health conditions associated with territoriality. It is noteworthy that the presence of diseases, low adherence to treatment and low schooling level are factors associated with a worse perception of QoL in individuals assisted in PHC[22].

The quality of life found in the study was similar to that of a cross-sectional study conducted in 2017 with 930 adult users registered in the USBs from Minas Gerais, where the highest QoL mean values were also observed in the social relationships domain and the lowest in the environment domain, relating the worst perceptions of QoL with worse health, housing, schooling and income conditions, in addition to problems in social relationships and psychological conditions[23].

It is noted that the territory is located in a zone under dispute by criminal organizations, is part of the Integrated Public Security Region (*Região Integrada de Segurança Pública*, RISP)[1] and presented a 54% increase in the number of homicides in December 2019 when compared to the same period in 2018[24].

It so happens that socioeconomic variables added to factors related to the urban space (such as presence of armed trafficking in strategic areas of the city) increase the mortality rates due to violence and promote the ecology of danger in the surroundings of the slums (*favelas*), which have become a refuge for criminal groups and areas where homeland security and informal justice practices have been shaped according to local domination[25,26].

In this sense, urban violence is a challenge that has exerted a direct impact on the primary health care sector due to the geographic location of health facilities in areas of vulnerability and to the greater exposition of workers to situations that endanger their safety, either implicitly or explicitly[26].

Data from this study show that, when assessing their health, 58.06% of the participants considered it as good or as very good at first, despite the scenario. In this sense, it is noteworthy that the general reaffirmation of the parameters referring to health indicators corroborates and highlights the assistance power of Primary Care in this scenario[27]. In synthesis, when studying QoL in the context of violence in the municipality of Rio de Janeiro, it is necessary to understand the state's geographical division and the reality of its territories.

Especially in the Municipality of Rio de Janeiro, it is noteworthy that the paramilitary groups that rule the city emerged in the 1970s in the state's capital, assumed their current profile in the late 1990s, and gained great strength in the 2000s by controlling the territories and taking the place of the State, charging fees and taxes on basic services[28].

Understanding the socio-historical expressions, centuries of violence in Europe show that the citizens' struggles for better living conditions and expansion of their rights and the institutionalization of formal education in the Democratic State were the fundamental variables of the unquestionably significant reduction in crime, delinquency and violent deaths[29].

It is alarming that recently, in 2019, a global study on homicides carried out by the UN pointed Brazil as the second most violent country in South America, with homicide rates at a level of 30.5 homicides per 100,000 inhabitants, preceded only by Venezuela, which presented a rate of 56.8[30]. It is also noteworthy that the problem of homicides is not restricted to the instrument used in the act of crime, but also to economic, social and political factors and, for this reason, in addition to weapon control, other public policies must be adopted, reaching in a systemic and integral way all the other factors that favor the growth of criminality[29,31].

The Institute of Applied Economic Research (*Instituto de Pesquisa Econômica Aplicada*, IPEA) emphasizes that considering changes in the legislation on weapons, in order to make them more accessible to the population, constitutes a factor with the potential to influence the number of violent deaths in the country and emphasizes that access to weapons is indicated as an influencer of this process. It also shows that a 1% increase in the number of firearms in circulation produces an increase of up to 2% in the number of deaths[1]; this same instrument indicates that, in 2018, 12,310 deaths with unknown causes were recorded, the highest rate since 2010, in addition to estimating that, in Brazil, 73.9% of the deaths due to unknown causes were, in fact, homicides that were concealed[32].

In opposition to the public policies that should be adopted, of the eleven decrees published in 2019 on expanding access to weapons, six are still in force, and mechanisms for the control of weapons and ammunition, such as markings,

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which made it possible to trace these products, no longer exist and favor the growth of crime[1]. Therefore, these total or partial revocations of the texts point to the absence of reflection, technical basis and evaluation of their impacts[1].

It turns out that the flexibilization of gun carrying in Brazil can generate an explosion in firearm violence, a relationship that is present in analyses of firearm violence in the United States - a country that has extremely flexible laws regarding carrying and possession by civilians[33]. Thus, more in-depth and accurate analyses of the impact of violence on QoL are relevant to the academic sphere and can assist in the review of social, health and security public policies in the national scenario[34].

Therefore, to promote health in Brazil, management based on social solidarity and on a holistic view of the problems is needed to reduce inequalities[22].

Study limitations

The study limitations include the fact that the exposure and outcome are collected at a single moment in time, making it more difficult to establish a temporal relationship between the events and, thus, to consider the causal relationship of violence with greater degree of certainty. However, the study provided the characterization of the population and its quality of life and indicated the violence perpetrated by strangers with a firearm as one of the intervening factors in quality of life, corroborating for health action and planning.

CONCLUSION

When evaluating quality of life in the context of violence in the Municipality of Rio de Janeiro, the lowest mean values are evidenced in the environmental domain, which is related to the worst perceptions of Quality of Life with health conditions associated with violence in the territory, which results in harms to health and quality of life. The data showed that it is necessary to establish a political project that understands and transforms the social conditions that generate all forms of violence for better quality of life and health.

The results also denote that the necessary conditions for achieving the Sustainable Development Goals defined in the 2030 Agenda are far away. Thus, when considering QoL as something valuable to society, its concept and assessment modalities must not be left undiscussed and unrevised considering historical advances and the demands of individual and public health management.

The discussion of public policies in this context becomes paramount given the governance that increasingly encourages greater flexibility in the Disarmament Statute and does not seem to care about what science has shown about the relationship between greater circulation of weapons in cities and the increase of violence, insecurity and the consequences for people's health and quality of life.

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