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Homicide occurrence in different regions of the city of São Paulo and its risk rate according to male gender between 2000 and 2014: an analysis of 11.981 cases

Ocurrencia de homicidio en diferentes regiones de la ciudad de São Paulo y su tasa de riesgo según genero masculino entre 2000 y 2014: un análisis de 11.981 casos.

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Resumen

Introducción: Los homicidios son causas importantes de mortalidad en el mundo, especialmente en Brasil, que representa aproximadamente dos tercios de las muertes por causas externas y el tercer lugar entre las causas de muerte en el país. **Materiales Y métodos**: Estudio retrospectivo sobre la ocurrencia de causas de muertes violentas ocurridas en diferentes regiones de Municipio de São Paulo de 2000 a 2014 según el Sistema de Información de Mortalidad de la Secretaría de Salud Municipal. Se calculó el coeficiente estandarizado (CP) para la ocurrencia de homicidios y las tasas de riesgo según la población y el sexo masculino. **Resultados:** De 11.981 casos, el CP mostró que las regiones sur y este mostraron un aumento en la ocurrencia de homicidios entre los años 2000 y 2005 en comparación con los años 2010 y 2014. Considerando la suma del CP en los 15 años, Es posible observar la mayor ocurrencia de homicidios en las regiones sur y oriente de la ciudad de São Paulo, sin embargo, con una reducción entre los años 2010 y 2014. En cuanto a la tasa de riesgo relativo de homicidio, la región norte tuvo tasas más altas entre 2000 y

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2005. Al considerar el género masculino, la región oeste mostró un aumento en la tasa de riesgo entre 2000 y 2005. Para los años 2010 la tasa de riesgo se mantuvo elevada para las regiones: norte (1,14) y este (1,15), mientras que para los hombres la tasa de riesgo (0,91) se mantuvo alta para la región sur. En 2014, la tasa de riesgo más alta (1,18) se trasladó a la región occidental, mientras que para los hombres la tasa de riesgo más alta se dirigió a la región central (0,92). **Conclusiones:** Se mantuvieron altas tasas de ocurrencia de homicidios para las regiones sur y oriente de la ciudad de São Paulo durante los últimos 15 años. La tasa de riesgo difiere entre las regiones de la ciudad de São Paulo, destacando la región norte entre los años 2000, 2005 y 2010 y la región occidental en 2014. El género masculino influye en las tasas de riesgo entre regiones, especialmente la región occidental entre 2000 y 2005, la región sur en 2010 y la región central en 2014, mostrando su influencia en la ocurrencia de homicidios.

Palabras claves

Homicidio; causas externas, mortalidad; epidemiología; violencia.
Fuente: DeCS (Descriptores en Ciencias de la Salud)

Abstract

Introduction: Homicides are important causes of mortality in the world, especially in Brazil, which represents approximately two thirds of deaths from external causes and the third place among the causes of death in the country. **Methods:** Retrospective study on the occurrence of causes of violent deaths occurring in different regions of the city of São Paulo from 2000 to 2014 according to the Mortality Information System of the Municipal Health Secretariat. The standardized coefficient (CP) for the occurrence of homicides and risk rates according to population and male gender were calculated. **Results:** The PC showed that the south and east regions had increased homicide occurrence between 2000 and 2005 when compared to the years 2010 and 2014. Considering the sum of the PC over the 15 years can be observed the highest occurrence of homicide. in the southern and eastern regions of São Paulo, however, with a reduction in occurrence between 2010 and 2014. Regarding the relative risk rate for homicide, the northern region presented higher rates between 2000 and 2005. When considering gender male population, the western region showed an increase in the risk rate between 2000 and 2005. For 2010, the risk rate remained higher for the northern (1.14) and eastern (1.15) regions, while for the male gender. For men, the risk rate (0.91) remained high for the southern region. In 2014 the highest risk rate (1.18) moved to the western region while for males the highest risk rate was directed to the central region (0.92). **Conclusions:** High homicide rates have remained in the southern and eastern regions of the city of São Paulo over the past 15 years. The risk rate differs between the regions of the city of São Paulo, highlighting the northern region between 2000, 2005 and 2010 and the western region in 2014. The male gender influences the risk rates between the

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regions, especially the western region between 2000 and 2005, the southern region in 2010 and the central region in 2014, showing their influence on homicide.

Key words

Homicide; external causes; mortality; epidemiology; violence

Source: MeSH (Medical Subject Headings)

INTRODUCTION

Among the different forms of violence, homicides stand out, which are defined by the WHO (World Health Organization) as "injuries inflicted by another person with the intention of attacking and killing by any means" [1]. Homicides are important causes of mortality in the world, especially in Brazil, which represents approximately two thirds of deaths from external causes and the third place among the causes of death in the country [2,3,4].

Most of these events are due to the country's social vulnerability, most of the time, explained by the presence of drug trafficking, alcohol abuse and illicit possession of weapons, which are associated with most homicide deaths [5,6,7,8]. In view of the significant occurrence of homicide studies carried out in the metropolitan region of São Paulo showed that the increase in the incarceration rate, disarmament, and the reduction in the proportion of young people in the population proved to be important factors for reducing the rate of death by homicide [9,10,11].

It should be noted, however, that despite its widespread character, this fall did not promote a change in the unequal distribution of homicides across the territory of the municipality of São Paulo, just as the young population remains the most victimized. According to different studies, homicide mortality has reached more expressive levels in areas with worse socioeconomic conditions, predominantly peripheral districts of the municipality [12].

According to the State Health Plan 2012-2015, most homicides in 2009 were predominantly for men aged 15 to 24 years old (5,481 cases) over women (568 cases), residents peripheral areas of metropolitan regions of large urban centers [13,14].

Until 1990, in the entire Metropolitan Region, including the capital, 48,861 deaths from homicides were registered, according to health agents and, according to security agents, 38,016 intentional homicides. Extending this calculation to the period 1981-2016, we have, on average, an annual difference of approximately 460 more homicides. However, it is worth noting that both sources show the same movement, that is, they point to an increase (intermittent) until 1999 and a decrease (continuous) in the following two decades. Although the data for the year 2012 are an exception, in the others, the curves indicative of the evolution of homicide rates reveal the same trend, proving that police data such as health data accurately capture the general evolution of mortality from violent acts in the city of São Paulo [14].

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Homicides have multifactorial and complex causal relationships with structural and social factors. Perhaps for this reason, the results are not always consistent when looking for evidence of associations between homicide deaths and social indicators [15].

The prevailing social conditions of life in Brazilian metropolises and even in medium-sized cities have created favorable situations for the growth and expansion of violence and crimes, especially those involving the fundamental right to life. In fact, the country's growing urbanization has made Brazilian society more complex and more conflictive [14,16].

Complexity is perceived in personal and intersubjective relationships, as well as in social and institutional relationships associated with the worsening of social inequalities, which may eventually have repercussions on violent outcomes as well as stimulate different types of violence and crime. Violence that has a series of implications for society, such as feelings of fear, revolt, and insecurity [14,16].

A field of studies has been established to describe these variations, as well as to understand the factors that are related to them, comprising different research designs and with differentiated results. This explains the complexity of understanding the phenomenon and its multiple causalities in specific social and historical contexts [17]. Among the existing analyzes to understand this phenomenon in the municipality, there are those aimed at investigating the weight of changes in the scope of public security and in the justice system, such as public investments in the area, model and quality of police action, restriction in circulation of firearms and incarceration [17,18].

In this article, we seek to understand about the occurrences of homicide in the last 15 years related to the years 2000 to 2014 in the different regions of the Municipality of São Paulo and their risk rates when considering the population and the male gender as fatal outcomes in the resolution conflicts in social and interpersonal relationships related to the occurrence of homicide. Thus, the objective of this study was to verify the homicide risk rate in the different regions of São Paulo city according to the male gender.

METHODS

This is a population-based and retrospective study of time series, based on a quantitative survey of the occurrence of homicides that occurred in the different regions of the city of São Paulo during the years 2000 to 2014. The total number of homicides that occurred during the study period was 11.981 cases. All data ignored in each variable studied were removed from the analyses.

Data were collected using the Mortality Information System (SIM) of the Municipal Health Secretariat, which processes the declarations of deaths that occurred in the municipality, using as a base document the Death Declaration (DO), signed by the doctor [18]. As public domain data with unrestricted access was used without identifying individuals, there was no need for approval by the local Institution's Ethics Committee.

Due to the probable changes that occurred in each of the populations in the time between the years 2000 to 2014, the calculation of the median standard population was performed for each year of information

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collection. And, for purposes of comparison between populations, the standardization of the mortality coefficient was carried out to correct the distortions resulting from possible differences in their composition, with respect to attributes or variables that are related to the probability of death [19]. With this standardization, the different regions of the municipality of São Paulo / SP had the standardized occurrence coefficient, following the constitution of the standard population [20].

Due to the fact that it analyzes six regions, the median was represented by the average of the populations located in the 3rd and 4th place of the ranking of populations in ascending order. The median was calculated for each of the years considered in the study (table 1). Once the median populations were established, for each year, the value of the standardized coefficient (CP%) of occurrence corresponding to homicides was calculated following the standard population, using the expression: number of events x 100,000 inhabitants / median standard population [18].

Table 1. Regions of the city of São Paulo, according to populations and median population and respective posts (P) ordered in ascending order between the years 2000, 2005, 2010 and 2014.

Regions	2000	P	2005	P	2010	P	2014	P
South	2.250.714	**4**	2.408.507	5	2.551.020	5	2.657.643	5
East	2.256.462	5	2.326.697	**4**	2.379.685	**4**	2.429.169	**4**
Southeast	2.531.989	6	2.596.056	6	2.648.640	6	2.678.653	6
West	921.629	2	973.558	2	1.022.564	2	1.048.539	2
Center	374.680	1	403.220	1	430.599	1	444.932	1
North	2.090.910	**3**	2.158.535	**3**	2.213.477	**3**	2.254.900	**3**
Median population	**2.170.812**		**2.242.616**		**2.296.581**		**2.342.034**	

To analyze the results, the Chi-square test was applied to compare the regions of the municipality in relation to the percentage of homicides for the years 2000, 2005, 2010 and 2014 and the calculation of risk rates between the different regions of the municipality of São Paulo according to the risk factor directed at the male sex. In all tests, the level of significance was set at 0.05 or 5.0%.

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RESULTS

Our results showed (table 2) that most homicides occurred in males (91.8%), aged between 24 and 54 years (59.9%), white ethnicity (50.4%) and with low education - 7 years or less of study – (77.6%). All results with statistically significant differences (p>0.0001).

Table 2 - Sociodemographic characteristics of the population studied (n = 11,981), during the period studied, according to the number of homicides that occurred.

Sociodemographic characteristics	2000		2005		2010		2014		TOTAL		p
Gender	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	
Male	5528	92.5	2572	92.4	1392	89.4	1496	90.1	10.988	91.8	< 0.0001
Female	446	7.5	211	7.6	165	10.6	165	9.9	987	8.2	Male>Female
TOTAL	5974	49.8	2783	23.3	1557	13.1	1661	13.8	11.975	100.0	
Age Group	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	
≥ 24 years	2328	40.0	889	32.9	399	26.4	540	34.0	4.156	35.8	< 0.0001
25 – 54 years	3318	57.2	1694	62.8	1012	66.8	940	59.1	6.964	59.9	24-54y > remaining
≤ 55 years	163	2.8	114	4.3	103	6.8	110	6.9	490	4.3	
TOTAL	5.809	49.9	2697	23.3	1514	13.1	1590	13.7	11.610	100.0	
Ethnicity	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	
White	3114	52.6	1387	50.1	757	49.2	724	44.0	5.982	50.4	< 0.0001
Black	605	10.2	256	9.2	127	8.3	154	9.4	1.142	9.6	White > remaining
Brown	2151	36.3	1114	40.3	643	41.8	762	46.3	4.670	39.4	Brown > demais
Indían	8	0.1	1	0.04	-	-	-	-	9	0.07	Black > indian and yellow
Yellow	47	0.8	10	0.4	10	0.7	4	0.3	71	0.6	
TOTAL	5.925	49.9	2.768	23.3	1.537	13.1	1.644	13.7	11.874	100.0	
Schooling	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	
No education	315	6.4	54	2.2	29	2.2	18	1.2	416	4.1	< 0.0001
1 – 3 years	3443	69.9	179	7.2	142	10.5	196	13.3	3.960	38.7	1 – 3 y e 4-7 y >
4 – 7 years	995	20.2	1279	51.9	560	41.5	719	48.7	3.553	34.8	remaining
8 – 11 years	170	3.5	841	34.2	539	39.9	461	31.2	2.011	19.7	
12 and more	-		112	4.5	80	5.9	82	5.6	274	2.7	
TOTAL	**4.923**	**48.2**	**2.465**	**24.1**	**1.350**	**13.2**	**1.476**	**14.5**	**10.214**	**100.0**	

Gender: 6 ignored data Age group: 371 ignored data Ethnicity: 107 ignored data Schooling: 1.767 ignored data

It can also be observed that there was a decrease in the number of homicides over the years studied, falling from 49.8% in 2000 to 23.3% in 2005 and a stability in 2010 and 2014 of 13.1% and 13.8% respectively. The results showed that the standardized coefficient - SC (%) was increased for the occurrence of homicide in the South and East regions of the Municipality of São Paulo/SP between the years 2000 and 2005 hen compared to the years 2010 and 2014, as observed in table 3.

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Considering the sum of the SCs over the 15 years, it is possible to observe the highest occurrence of homicide in the South and East regions of the city of São Paulo, however, with a reduction in the occurrence between the years 2010 and 2014 (table 3).

Table 3 – Standardized Coefficients (SC%) for each 100,000 inhabitants of the occurrence of homicide and their comparisons between the different regions of the city of São Paulo.

Regions	Year				SC (Mean)	p
	2000 (1)	2005 (2)	2010 (3)	2014 (4)		
South	72.0	38.2	16.5	16.7	35.8	0.0001 1 > 2,3 e 4 2 > 3 e 4
Southeast	46.2	18.4	9.2	10.6	21.1	0.0001 1 > 2,3 e 4 2 > 3 e 4
North	44.9	22.8	11.5	12.4	22.9	0.0001 1 > 2,3 e 4 2 > 3 e 4
West	8.6	5.3	2,6	2.5	4.8	0.0001 1 > 2,3 e 4 2 > 3 e 4
Center	8.5	3.1	2,0	1.5	3.8	0.0001 1 > 2,3 e 4 2 > 3 e 4
East	73.3	27.9	11,8	15,5	32.1	0.0001 1 > 2,3 e 4 2 > 3 e 4 4 > 3

In relation to the relative risk rate for homicide, the North region had the highest rates between 2000 and 2005. When considering the male gender, the West region showed an increase in the risk rate between 2000 and 2005 (table 4).

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For the years 2010, the risk rate remained increased for the regions: North (1.14) and East (1.15), while for males, the risk rate (0.91) remained high for the South region (Table 4).

In 2014, the highest risk rate (1.18) went to the West region, while for males the highest risk rate went to the Center region (0.92), as shown in table 4.

Table 4 - Occurrence of Homicide for every 100.000 inhabitants and risk rate for occurrence based on population and male gender over the years 2000 to 2014 for the different regions of the Municipality of São Paulo.

2000 - Standard Population 2.170.812						
Regions	**Yes**	**No**	**Relative Risk Rate**	**Yes - FR Male**	**No - FR Male**	**Relative Risk Rate**
South	1.563	2.169.249	1,08	1.451	2.249.263	0,93
Southeast	1.003	2.249.711	1,08	927	2.249.787	0,92
North	976	2.249.738	**1,10**	885	2.249.829	0,91
West	186	2.249.528	1,06	175	2.249.539	**0,94**
Center	132	2.249.582	1,02	121	2.249.593	0,92
East	1.591	2.249.123	1,07	1488	2.249.226	**0,94**
Total	**5451**	**13.496.833**	**6,41**	**5.047**	**13.497.237**	**5,56**
2005 - Standard Population 2.242.616						
Regions	**Yes**	**No**	**Relative Risk Rate**	**Yes - FR Male**	**No - FR Male**	**Relative Risk Rate**
South	857	2.241.759	1,07	802	2.241.814	0,94
Southeast	412	2.242.204	1,08	381	2.242.235	0,92
North	512	2.242.104	**1,09**	469	2.242.147	0,92
West	120	2.242.496	0,92	111	2.242.505	**1,09**
Center	69	2.242.547	1,01	63	2.242.553	0,91
East	626	2.241.990	**1,09**	573	2.242.043	0,92
Total	**2.596**	**13.496.833**	**6,26**	**2.399**	**13.497.237**	**8,40**
2010 - Standard Population 2.296.580						
Regions	**Yes**	**No**	**Relative Risk Rate**	**Yes - FR Male**	**No - FR Male**	**Relative Risk Rate**
South	426	2.296.201	1,10	344	2.296.237	**0,91**
Southeast	247	2.296.369	1,12	188	2.296.393	0,89
North	285	2.296.316	**1,14**	232	2.296.349	0,88
West	73	2.296.519	1,13	54	2.296.527	0,89

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Center	50	2.296.534	1,12	41	2.296.540	0,89
East	307	2.296.309	**1,15**	236	2.296.345	0,87
Total	**1.388**	**13.778.248**	**6,76**	**1.095**	**13.778.391**	**5,33**
2014 - Standard Population 2.296.580						
Regions	**Sim**	**Não**	**Taxa Risco Relativo**	**Sim - FR Masculino**	**Não -FR Masculino**	**Taxa Risco Relativo**
Regions	425	2.296.197	1,14	343	2.341.691	0,88
South	279	2.296.336	1,13	221	2.341.813	0,89
Southeast	312	2.296.295	1,12	260	2.341.774	0,89
North	67	2.296.522	**1,18**	50	2.341.984	0,85
West	39	2.296.546	1,08	32	2.342.002	**0,92**
Center	397	2.296.224	1,13	322	2.341.712	0,89
East	**1.519**	**13.778.120**	**6.78**	**1.228**	**14.050.976**	**5.32**

528 ignored data (2000); 188 ignored data (2005); 169 ignored data (2010); 142 ignored data (2014)

DISCUSSION

Epidemiological studies of homicide mortality allow us to know the extent of this violence, its prevalence, and characteristics, supporting public policies for prevention, promotion, and public safety. The use of violence for conflict resolution, in contexts marked by wide social inequalities, lack of opportunities and inefficiency of public security and justice institutions has been reflected, in recent years, in the increase in violent deaths in Brazil [19].

Another important determinant of crime relates to the demographic and gender structure of the population, more specifically to the proportion of young men in the population. A consecrated result in studies on criminal a etiology is that crime is not a constant in the individual's life cycle. International statistics and standards also show that the highest prevalence of criminal offenses occurs not only in youth, but also among males [20].

In general, fundamentally three points can be considered in the findings of this study. First, homicide occurrences remained increased in the South and East regions of the Municipality of São Paulo / SP between 2000 and 2005, decreasing between 2010 and 2014. Second, the relative risk rates were higher for the North region between 2000, 2005 and 2010, moving to the West region in 2014 based on population. And third, the male gender was shown to be of great influence in the different regions, in which the risk rates remained higher in the Western region between the years 2000 and 2005, for the South region in 2010 and for the Center region in the year 2014.

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According to the World Health Organization, approximately 1.6 million people die each year as a result of violence [21]. According to data from the Mortality Information System of the Municipality of São Paulo, the main causes of homicides that occurred in the period from 2000 to 2014 victimized more men, whites and browns in variable numbers according to the regions of the municipality, often with the use of firearms [18].

In this study it was possible to distinguish and clarify the risk rates according to the population and according to the male gender, showing peculiar differences according to the region, prevailing with higher risk rates in the Western region between the years 2000 to 2005, as well as for the South and Central regions in the years 2010 and 2014, respectively.

According to Dias [22] the South and East Zones regions of the city of São Paulo / SP, as they are more geographically extensive, have a large number of peripheral neighborhoods with a strong presence of criminal organizations that control trade, security and local drug trafficking. Such regions also have as characteristics, to be very populous and located in extremes, they are more distant from the economic pole of the municipality, consequently presenting greater social, economic and cultural inequality. The differential of this study was to verify and differentiate the highest risk rate according to gender for the South and Central region between the years 2010 and 2014 and for the North and West region for those years considering the population as the base.

The progressive and growing urbanization of the city of São Paulo, has made society more conflictive in its social environment. Complexity is perceived in personal and intersubjective relationships as well as in social and institutional relationships. Conflicts of different kinds are associated with the worsening of social inequalities, which can eventually have repercussions on violent outcomes and stimulate different types of violence and crime. If, on the one hand, the increase in crime rates is not a controversial matter, on the other, it is not the same when seeking to generalize direct and immediate relationships between urban contexts, in which social inequalities predominate, and the evolution of crime [13].

Since the 1950s, declines have been observed in homicide rates, and the variation intensifies as the scale of analysis decreases - states, metropolitan areas, cities, intra-urban territorial units [13], as well as the different regions of a city. same city, such as São Paulo. Urban studies reflect many variations in these rates of violence, making crime a phenomenon that is difficult to measure and understand. This fact highlights the need to understand the particularities of different regions of the city of São Paulo and the risk rates considering gender, a risk factor of great influence among the regions evaluated, especially the West, South and Center regions over the years 2000-2005, 2010 and 2014 [18].

The State of São Paulo and its capital have recorded successive reductions in the indicators of violence at the beginning of this century, particularly of homicides. However, the explanations of this phenomenon are still the subject of intense debate and little specificity [7,23], especially for the occurrence of homicide and its risk rates considering the population and the presence of men for the different regions that make up the metropolitan capital of São Paulo / SP, a fact that encouraged the present study to better understand mortality rates by homicide.

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Among those who perceive the drop in the occurrence of homicides, different aspects are mobilized, with different weights and combinations in the narratives, in order to expose explanatory considerations. Although the complexity of the factors involved is not exhausted, some gain greater prominence, such as changes in the social and economic conditions of the districts over time, which owe a large part of community mobilization, as well as changes in public security and in the mold of criminality itself [24].

Despite these improvements, many shortcomings persist, qualified by a double aspect: unequal access to socio-economic and infrastructure rights within the districts themselves and the lack of quality of existing public services. In this sense, there is the occupation of the edges of the districts by residents with less financial resources, constituting "pockets" where socioeconomic precariousness is greater and access to public services is lower. Thus, the expansion of services is still deficient, as there is a lack of professionals to work in the regions, the existing equipment is not supreme in demand, the quality of the services offered is not always satisfactory and areas without access to them remain [25].

This understanding remains very important in the scientific community, but above all in the field of public policies, as knowing the specifics according to the regions and their risk rates over the years 2000 to 2014, considering the population and the risk factor male, are fundamental points that guide indicators of violence in the city of São Paulo / SP, which allows to improve the effectiveness of public programs in the State [8,23].

Although socioeconomic conditions are important, there is no direct causal relationship between socioeconomic indicators and violence, including with regard to homicide deaths [26]. Thus, it is necessary to consider other factors that also enter into the mediation and conformation of this phenomenon.

Among the vulnerability factors for the increase in violence in large urban centers are troubled family relationships, presence of gangs, circulation of firearms in the community, drug trafficking and weakening of social cohesion, in addition to socio-demographic characteristics, such as the issue legitimacy and trust in institutions, especially security, investment in social policies, cultural norms that support gender violence and personality characteristics [20,27].

Despite the studies pointing out numerous risk factors for the occurrence of homicide, in this study the primary focus was to verify the influence only of the male gender on the risk rate for the occurrence of homicide considering the different regions of the city of São Paulo, being East, West, North, Southeast and Center.

The State Department of Homicide and Personal Protection (DHPP), the creation of the Technical and Scientific Police Superintendence have concentrated efforts on the technical improvement of police activity and the management of justice and public security institutions in strategic planning for effectiveness in the reduction of risk rates for the occurrence of homicide [17,23,26].

In a simplified way, the findings of the present study help to clarify the differences between the regions and to consider the male gender over the years 2000 to 2014, considering the Law on Feminicide (Law 13.104 / 2015) [29,30,31], which aims to increase the severity of punishments for this type of crime, helping to slow the growth in the numbers of murders of women victims of domestic violence by men.

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It is also worth mentioning the link between the aspects analyzed. From the above, it is possible to estimate that the hypotheses presented for the drop in homicides in the municipality of São Paulo, far from offering individual explanations for fatal violence, need to be evaluated in their interconnections, in their limits, as well as in specific modulations in different contexts. Highlights, therefore, the importance of studies that focus on dynamic sites in varying homicide rates [25]. Corroborating the statement that the demographic structure has a significant role in the dynamics of homicides [32], the limitation of this study was not to add the specificity of violent crime according to the young age group of 15 to 24 years old and the abusive and dependent use of drugs [33]. Future studies based on these factors together are necessary for greater predictability for the occurrence of homicide.

CONCLUSION

High homicide rates have remained for the southern and eastern regions of the municipality of São Paulo over the past 15 years, in an analysis of 9,052,043 cases. The risk rate differs between the regions of the municipality of São Paulo, highlighting the northern region between the years 2000, 2005 and 2010 and the western region in 2014. The male gender influences the risk rates between the regions, especially the the western region between 2000 and 2005, the southern region in 2010 and the central region in 2014, showing its influence on the occurrence of homicide.

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