

An Autopsy Study of Pattern and Yearly Trend of Homicide in Warri, Nigeria

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Abstract

Background: Homicide is a common cause of unnatural death and an index of the level of security of the state. The aim of this study was to analyze all autopsied unnatural homicide cases in Warri, Nigeria from 2003 to 2016 with emphasis on age, sex, regional distribution of injury, and circumstance of death. **Materials and Methods:** Six hundred and seventy-four cases were studied and relevant information extracted from police and autopsy records. These information were analyzed using SPSS 21. **Results:** Unnatural homicide cases accounted for 69.1% of 975 medicolegal deaths autopsied in this region, with a male to female distribution of 14:1. The mean age of the victims was 33.2 years with the highest incidence occurring in the 3rd decade. Firearms, sharp weapons, blunt weapons, suffocation, and burning were the methods used in 426 (63.2%), 162 (24.0%), 73 (10.8%), 11 (1.7%), and 2 (0.3%) cases, respectively. The chest, the head, and the neck were the most common parts of the body affected representing 275 (40.8%), 162 (24%), and 52 (7.7%) of cases. **Conclusion:** Unnatural death as a result of homicide is very common in the study area and mainly perpetrated using firearms and sharps with young males being the most vulnerable age group. The head, chest, and neck are more commonly affected regions of the body.

Keywords: Autopsy, cause of death, firearm, homicide, injury

INTRODUCTION

According to Black's law dictionary, the act of killing one person by another (whether lawful or unlawful) is called homicide. Lawful homicide includes death inflicted in the cause of defending the security of a nation, state mandate execution, death associated with arrest, self or property defense. Unlawful homicide includes murder, manslaughter, suicide, and infanticide.¹

The incidence of homicide is highly variable across countries with a global incidence of about 6.2/100,000 in the year 2012, 31% of the cases occurring in Africa.² These reports are however not homogeneous across Africa due to the inherent data deficit, as most of these mortalities are attributed to South African data.²

The relatively high homicide rate in Africa is attributed to decades of political violence, inequality, organized crime and gangs, armed robbery, food insecurity, economic instability, unemployment, and poor implementation of the rule of law.^{2,3}

The consequences of homicide are legion. The potential years lost, economic cost, posttraumatic stress disorders, and insecurity are some consequences.⁴ The homicide rate in a region is also an index of the level of security in the state under investigation.^{3,5}

Nationally, there is a paucity of centralized information on the profile of homicides with pockets of data arising from hospital-based data autopsy studies in different regions of the country. This study is the first of its kind in Warri, the commercial capital of Delta state and is focused on the yearly trend and pattern of unlawful homicides in this region.

MATERIALS AND METHODS

The authors have been responsible for providing autopsy services in Warri and surrounding communities in the

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14 years (January 1, 2003–December 31, 2016) covered by this study. These autopsies were performed in the various government and private mortuaries in this region, following authorization by the coroner.

Information such as gender, age, type of weapon used, and injury pattern were extracted from the autopsy reports and police records of all murder and manslaughter cases in Warri, Delta State. The information, in addition to the yearly trend, was subsequently analyzed using IBM Corp. Released in 2012. IBM SPSS Statistics for Windows, Version 21.0. (Armonk, New York, USA). The results of the analysis are presented in tables and charts.

Prior to this study, the approval to carry out this research was obtained from the Ethical Clearance Committee of Central Hospital, Warri (Reference number: CHW/ECC VOL1/12).

RESULTS

Six hundred and seventy-four unlawful homicide cases were encountered in this study, accounting for 69.1% of the 975 medicolegal autopsies performed in that region during the study. This represents a mean incidence of about four cases monthly. The detail of yearly distribution is shown in Table 1.

The gender and age distribution of homicide victims is shown in Table 2. The victims consist of 629 (93.3%) males and 45 (6.7%) females representing a male:female ratio of about 14:1. The mean age of the victims is 32.2 years. Most victims were in the 3rd, 4th, and 5th decades of their lives representing 33.2%, 31.2%, and 15.7% of the cases, respectively.

The weapons of executing these homicide cases are shown in Table 3. Firearms, sharp weapons, blunt weapons, suffocation, and burning were the methods used in 426 (63.2%), 162 (24.0%), 73 (10.8%), 11 (1.7%), and 2 (0.3%) cases, respectively.

The body parts wounded is shown in Table 4. The chest, the head, and the neck were the most common parts of the body affected, representing 275 (40.8%), 162 (24%), and 52 (7.7%) of cases, respectively. The involvement of multiple regions of the body was seen in 42 (6.2%) cases.

DISCUSSION

Our study showed that unlawful homicides are relatively common in this region, accounting for 69.1% of medicolegal deaths. Earlier studies from other parts of Nigeria show that homicide accounts for 3.1%–45.3% of medicolegal autopsies.⁶⁻¹⁰ The relatively higher rate in the index study may be attributed to the effects of decades of oil exploration, political violence, militancy, inequality, rapid urbanization and the increasing rate of unemployment, armed robbery, and kidnapping.¹¹

We also observed a marked gender discrepancy among homicide victims with an M: F ratio of 14:1. There is a general observation of male dominance among homicide

Table 1: Yearly trend of unlawful homicides in Warri, Nigeria

Year	Frequency (%)
2003	36 (5.3)
2004	36 (5.3)
2005	55 (8.2)
2006	7 (1.0)
2007	28 (4.2)
2008	26 (3.9)
2009	49 (7.3)
2010	42 (6.2)
2011	79 (11.7)
2012	57 (8.5)
2013	61 (9.1)
2014	94 (13.9)
2015	71 (10.5)
2016	33 (4.9)
Total	674 (100.0)

Table 2: Age and sex distribution of homicide victims in Warri

Age (years)	Sex		Total (%)
	Female (%)	Male (%)	
0-9		6 (1.0)	6 (0.9)
10-19	4 (8.9)	49 (7.8)	53 (7.9)
20-29	20 (44.4)	204 (32.4)	224 (33.2)
30-39	4 (8.9)	206 (32.8)	210 (31.2)
40-49	10 (22.2)	96 (15.3)	106 (15.7)
50-59	5 (11.1)	42 (6.7)	47 (7.0)
60-69	2 (4.4)	15 (2.4)	17 (2.5)
70-79		7 (1.1)	7 (1.0)
80-89		4 (0.6)	4 (0.6)
Total	45 (6.7)	629 (93.3)	674 (100.0)

victims globally, with an M: F ratio of about 4:1.² In other parts of Nigeria, the M: F ratio for homicide victims ranges from as low as 3:1 in Benin city to as high as 16:1 in Kano and Jos.^{3,7,8,10} The relatively higher M:F ratio in the Northern part of Nigeria (Jos/Kano) may be related to Islamic religious practice associated with a lower level of female engagement in the labor force or outdoor activity that may expose them to homicide-related risk factors.¹² The overall polarized male involvement in outdoor activity, drug and substance abuse, involvement in crimes, the patriarchal family system, and gangsterism are attributes that may account for the predominance of male victims in this region,¹¹ while the sociocultural norms and preference of females for indoor activities tend to be protective of the female gender.¹³

Our study also shows that majority of the male and female victims were youths, with about 72% of them being below the age of 40 years. This is in consonance with other reporters both locally and globally.^{2,7,14} The peak incidence corresponded with the 3rd and 4th decades for females and males, respectively, and

Table 3: Age and methods of homicide in Warri

Age (years)	Method of inflicting death					Total (%)
	Asphyxia (%)	Blunt (%)	Burnt (%)	Firearm (%)	Sharp (%)	
0-9		2 (2.7)		4 (0.9)		6 (0.9)
10-19	2 (18.2)	5 (6.8)	1 (50.0)	19 (4.5)	26 (16.0)	53 (7.9)
20-29	1 (9.1)	14 (19.2)		137 (32.2)	72 (44.4)	224 (33.2)
30-39	3 (27.3)	21 (28.8)		148 (34.7)	38 (23.5)	210 (31.2)
40-49		16 (21.9)	1 (50.0)	72 (16.9)	17 (10.5)	106 (15.7)
50-59	4 (36.4)	7 (9.6)		30 (7.0)	6 (3.7)	47 (7.0)
60-69	1 (9.1)	2 (2.7)		13 (3.1)	1 (0.6)	17 (2.5)
70-79		2 (2.7)		3 (0.7)	2 (1.2)	7 (1.0)
80-89		4 (5.5)				4 (0.6)
Total	11 (1.6)	73 (10.9)	2 (0.3)	426 (63.3)	162 (24.1)	674 (100.0)

Table 4: Regional distribution of injuries among homicide victims

Part of body	Method of inflicting death					Total (%)
	Asphyxia	Blunt	Burnt	Firearm	Sharp	
Abdomen				82 (19.2)	10 (6.2)	92 (13.6)
Arm				2 (0.5)	4 (2.5)	6 (0.9)
Back				5 (1.2)	1 (0.6)	6 (0.9)
Chest		4 (5.5)		195 (45.8)	76 (46.9)	275 (40.8)
Generalized	2 (18.2)	26 (35.6)	2 (100.0)	6 (1.4)	6 (3.7)	42 (6.2)
Head		42 (57.5)		92 (21.6)	28 (17.3)	162 (24.0)
Heart				1 (0.2)	1 (0.6)	2 (0.3)
Hip				15 (3.5)		15 (2.2)
Legs				3 (0.7)		3 (0.4)
Neck	9 (81.8)			13 (3.1)	30 (18.5)	52 (7.7)
Shoulder		1 (1.4)		5 (1.2)	1 (0.6)	7 (1.0)
Thigh				5 (1.2)	2 (1.2)	7 (1.0)
Throat				2 (0.5)	3 (1.9)	5 (0.7)
Total	11 (100.0)	73 (100.0)	2 (100.0)	426 (100.0)	162 (100.0)	674 (100.0)

the 3rd decade for all the victims combined. The earlier peak for the females may be attributed to the age-related sexual, economic, and psychological attractiveness of the victims as targets of homicide.

Firearm was observed as the most common means of homicide victimization in this study, accounting for 63.2% of the cases. This observation was also shared by Akhiwu in Benin City,⁷ Obiorah in Port Harcourt,¹⁴ and Eze in Ibadan.¹⁰ In some publications, especially in the Northern part of the country, however, sharp weapons were predominantly used.¹⁴⁻¹⁷ From these observations, it can be concluded that firearms are the preferred choice in the southern part of the country while sharp weapons are more common modes in the Northern part of the country. Carriage of daggers is common in the Northern Nigeria, predisposing to its use in offensive and defensive situations.³ By the same analogy, this underscores the ready availability of small arms, especially in the southern part of the country. By and large, the fatality of the injury caused and the efficiency of the health-care system are two important factors that determine the outcome of homicide attempt.³ Decades of militancy and oil reserve control in the Niger Delta, cultism,

armed robbery, assassination, kidnapping, and ominous health-care system will be blamed for the trend in this region.

The most common anatomic locations affected by penetrative firearm injury were the chest and the head accounting for 195 (46.9%) and 92 (21.6%) cases. The chest and the neck were the most common targets for sharps, accounting for 76 (46.9%) and 30 (18.5%) cases, respectively. With respect to blunt trauma-related homicides, injuries affected the head or multiple regions in 42 (57.5%) and 26 (35.6%) cases, respectively. In general, the fatality of these injuries may be related to the extent of vascular trauma which correlates strongly with the extent of blood loss; and the importance of the organs to the victim's survival.

CONCLUSION

This study has shown that homicide was mainly perpetrated using firearms and sharps with young males being the most vulnerable age group. The head, chest, and neck were the more commonly affected regions of the body. Injury lethality, weapon availability, as well as the degree of efficiency of the

health-care system, are variables that determine the outcome of these cases.

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Conflicts of interest

There are no conflicts of interest.

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