

Unnatural Deaths in Benin City Nigeria: Two Decades Analysis of Violent Deaths

**Nwafor C.C., *Akhiwu W.O. and *Ugiagbe E.O.*

Pathology Department. University of Benin Teaching Hospital, Benin-City, Nigeria.

Abstract

Objective: *The aim of this study is to estimate the mortality attributable to violence and trauma and to highlight the need for preventive measures.*

Method: *The records of all accidental, suicidal and homicidal deaths seen in the department of pathology, University of Benin Teaching Hospital, Benin City from January 1990 to December 2009 were reviewed.*

Result: *Unnatural/violent cases accounted for 1,529 (34.1%) of all medicolegal cases within the study period. Accidental deaths accounted for 1,283 (83.9%), homicide 223 (14.6%) and suicide 23 (1.5%) of all unnatural deaths. A total of 1204 males and 325 females were involved in a male to female ratio is 3.7:1. The commonest cause of accidental deaths was road traffic crashes which accounted for 1136 (88.5%) of cases. A total of 1,019 males and 264 females were involved in accidental deaths with a male to female ratio of 3.9:1. Homicidal deaths occurred in 166 males and 57 females. The commonest method of homicide was by use of firearms, which accounted for 154 (69.1%) cases. Suicides were seen in only 23 cases, 19 males and 4 females, in a male to female ratio of 4.8:1.*

Conclusion: *So long as unemployment, poverty and hunger remain with us, violent deaths will continue especially homicides caused by kidnappers. If jobs are available, majority will not resolve to ride motorbikes as source of livelihood. Government should also try to provide better transport system and good roads.*

Keywords: Unnatural deaths, Violent deaths, Accidents, Homicides and Suicides

Introduction

Violent deaths are medicolegal deaths that are caused by unexpected force or injury rather than natural causes.

Violent deaths also known as unnatural deaths are deaths due to accidents, homicides and suicides.^{1,2,3} Deaths in this category are usually

studied together, because they may all represent suicidal tendencies and as such should all be included in any comprehensive attempt to understand deaths due to violence.¹ In sub-Saharan Africa, unnatural and /or violent deaths due to homicide, accident and suicides have received little attention.³ By contrast deaths due to infection and other

Correspondence to: Dr. Nwafor CC, Pathology Dept., University of Benin Teaching Hospital, Benin City. *E-mail:* firstcocsin@yahoo.com. *Phone numbers:* +2348102462487

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natural disease have been given more emphasis.³ In 1990, an estimated 1,851,000 people died from violence (35.3 per 100 000) in the world.⁴ There were an estimated 786 000 suicides. Overall suicide rates ranged from 3.4 per 100 000 in Sub-Saharan Africa to 30.4 per 100 000 in China. There were an estimated 563 000 homicides. Overall homicide rates ranged from 1.0 per 100 000 in established market economies to 44.8 per 100 000 in Sub-Saharan Africa with peaks among males aged 15–24 years old, and among females aged 0–4 years old.⁴ The effect of violent deaths is of such a high magnitude, that it is ranked the third leading cause of death for people of all ages and the leading cause of death in people aged 1-39 years.^{5,6} Violence is fast overtaking infectious diseases as the principal cause of morbidity and premature mortality worldwide. For too long, violence has been a neglected epidemic and social responses have been mostly reactive rather than preventive.⁶ However, because it is hidden from the public view or because of powerlessness, fear and or stigmatization of victims, many cases of violence are unreported or undiagnosed.⁶

Ability to understand and interpret violent deaths helps to avoid miscarriage of justice as seen in various cases. An example is a trussed schoolboy, found hanging and partly dressed, who was suspected to be a case of suicide on the surface while actually on further probing was concluded to be undoubtedly an accidental death during a masochistic session.⁷ There has been cases of suicide by means of motor vehicle accident.⁸ An important fact remains that, every doctor should be on the alert and open minded not readily given to accepting the first obvious explanation of an event, though not, at the same time, stubbornly refusing to accept a reasonable possibility.⁷

University of Benin Teaching Hospital (UBTH), is the only teaching hospital in Benin city and serves Benin and all the neighbouring towns, villages and states. Benin City is the commercial centre of the region and serves as a major

attraction/destination point for people. There is a high level of unemployment and poverty in the town which is not able to meet up with the ever increasing population and this predisposes people to harsh living conditions that could lead to violent deaths.⁹ The aim of this study is to estimate the mortality attributable to violence and trauma and to develop a link between different causes of deaths along with demographic variables, age and gender and also to develop a baseline data of the impact of violence in our environment.

Materials and Methods

This is a retrospective study of all accidental, suicidal and homicidal deaths seen in the department of pathology, University of Benin Teaching Hospital, Benin City from January 1990 to December 2009. All deaths from unnatural/violent causes are notifiable to the police who then request for medicolegal autopsy.

Results

During the period, a total of 35,914 bodies were received in the mortuary of department of pathology, UBTH. Medicallegal autopsies were done on 4,481 of them representing 12.5% of all the bodies received. Natural causes of death, accounted for 2,935 (65.5%) of cases, unnatural/violent cases accounted for 1,529 (34.1%) cases and undetermined causes accounted for 17 (0.4%) of cases as shown in table I.

Table 1: Causes of medicolegal autopsies in UBTH

Causes of Deaths	Frequency	Percent
Natural	2935	65.5
Unnatural/Violent	1529	34.1
Undetermined	17	0.4
Total	4481	100.0

Table 2: Age and sex distribution of causes of violent deaths

Age group	Accidents		Homicides		Suicides		Total
	M	F	M	F	M	F	
< 1 year	3	3	1	0	0	0	7
1-4 years	12	18	0	0	0	0	30
5-9 years	25	12	1	4	0	0	42
10-14 years	29	12	2	0	0	0	43
15-24 years	170	52	32	16	5	2	277
25-44 years	537	89	94	25	10	1	756
45-64 years	191	52	32	10	3	1	289
65 years and above	52	26	4	2	1	0	85
Total	1019	264	166	57	19	4	1529
	1283		223		23		

Table 2, shows the age and sex distribution of the various causes of violent deaths. Accidental deaths accounted for 1,283 (83.9%) of cases, homicide 223 (14.6%) and suicide 23 (1.5%) of cases. A total of 1204 males and 325 females were involved in a male to female ratio is 3.7:1

Table 3 shows the sex distribution of the different causes of accidental deaths. The commonest cause of accidental deaths was road traffic crashes which accounted for 1136 (88.5%) of cases. A total of 1,019 males and

Table 3: Sex distribution of the causes of accidental deaths

Accidental causes of deaths	Male (%)	Female (%)	Total (%)
RTA	927 (91.3)	209 (78)	1136 (88.5)
Burns	67 (6.6)	47 (17.5)	114 (8.9)
Falls	5 (0.5)	4 (1.5)	9 (0.7)
Drowning	3 (0.3)	3 (0.3)	6 (0.5)
Foreign body aspiration	4 (0.4)	1 (1)	5 (0.4)
Snake bite	2 (0.2)	2 (0.7)	4 (0.3)
Electrocution	3 (0.3)	0 (0.0)	3 (0.2)
Intra-operative asphyxia	2 (0.2)	1 (1)	3 (0.2)
Rabies (dog bite)	2 (0.2)	1 (1)	3 (0.2)
Total	1015	268	1283 (100)

264 females were involved in accidental deaths with a male to female ratio of 3.9:1.

Homicidal deaths occurred in 166 males and 57 females, in a male to female ratio of 2.9:1. The commonest method of homicide was by use of firearms (gunshots), which accounted for 154 (69.1%) cases as shown in table 4.

In this study, violent/unnatural deaths are the leading cause of death second only to natural deaths. This is similar to observations in USA.⁵ Most of the factors responsible for high rate of violence like unemployment and poverty are high in our society. Most of the victims of violent deaths in our study are males and belong to the age groups 15-24 years and 25-44 years. This observation is similar to findings from studies in other parts of Nigeria, South

Table 4: Causes and sex distribution of homicidal deaths

Homicidal causes of deaths	Male (%)	Female (%)	Total
Gunshot (firearms)	129 (77.7)	25 (43.9)	154 (69.1)
Stab wound	9 (5.4)	2 (3.5)	11 (4.9)
Cut throat	0 (0.0)	1 (1.8)	1 (0.4)
Sharp object injuries	4 (2.4)	1 (1.8)	5 (2.2)
Suffocation	6 (3.6)	0 (0.0)	6 (2.7)
Blunt force injuries	18 (10.8)	2 (3.5)	20 (9.0)
Criminal abortion	0	26 (45.6)	26 (11.7)
Total	166	57	223 (100.0)

Suicides were seen in only 23 cases, 19 males and 4 females in a male to female ratio of 4.8:1. Substance ingestion was noticed to be the only method used. However, this is subject to a lot of controversy and a major limitation of this study since toxicology was not routinely done and the diagnosis was made, based on scene of crime, extensive gastric ulceration and history from relatives.

Discussion

It is a well known fact that medicolegal autopsies are necessary for exhaustive evaluation of violent and/or traumatic deaths, these autopsies are necessary for legal security also for fulfilling the social need to analyze injury mechanism and the consequent possibility of preventive efforts.¹⁰

Africa and America.^{1,9,11-15} The reasons are not farfetched because young males are generally at the peak of sexual activities, consume alcohol and generally have the tendency to carry light weapons.⁹ Because of the paternalistic nature of our society, young males are most times the bread winners and are involved in out door activities that most times predispose them to violent deaths like deaths associated with road traffic accidents.

In this study, accidental deaths accounted for majority of the violent deaths with road traffic crashes-topping the list of causes. This mirrors the observation by Seleye-Fubara, *et al*, Amakiri *et al* and Mandong, *et al* in Nigeria.¹¹⁻¹³ This finding is not similar to observations made about violent deaths in South Africa and USA where better transport system and good roads are in place.^{5,9} Road traffic crashes are common

in our environment and vehicles are the most involved. This is because Benin City is a gate way to several other states and trunk A road crashes are more common in Benin City and its environs.¹⁴ Injuries and mortality due to motorcycle accidents are also on the rise in recent times. A major reason for this is because all the neighboring states to Benin have stopped the use of motorcycles for any form of transportation. Benin City is the only major town around where motorcycle is still in use as means of transportation and since most of the bike riders from the neighboring states are still unemployed, it is conceivable that Benin City now serves as a new business ground for them, hence gradually but steadily increasing the number of fatal motorcycle crashes .

In recent times, there have been calls by members of the public on the state government to provide buses and taxis, but if government should do this, they must provide jobs for its population or else when they stop riding bike, they get unemployed and may take to armed robbery to make ends meet. Apart from stopping the use of bikes, the old roads need to be repaired, widened and refurbished with modern gadgets like traffic lights, street lights and speed breakers.

Violent deaths due to burns is a significant finding in this study, while death due to burns is conspicuously missing or very small in most studies.^{9,11,12} The reason for the high number of burns related death in this study is due to numerous oil pipeline explosion, either caused by vandals or due to poor maintenance. The ugly side of it is that whenever it occurs, hardly does anyone around or involved survive. A big question with a simple answer is why should people vandalize oil pipeline? Many citizens are impoverished and poverty and unemployment are closely related to violent death.⁹

Violent deaths due to homicide in this study accounted for 223 (14.6%) of cases. This is the second highest cause of violent deaths in this study, with use of firearms accounting for 154

(10.1%) cases. Majority of these firearm deaths were by the use of shot guns which is readily available for hunting and of recent is being cut to small size for ease of carriage. The rate of firearm violence in our study is higher than the rate in Japan, but similar to finding in Ibadan and lower than 35.2% reported in Port Harcourt.^{11,15,16} The firearm homicidal deaths in South Africa is higher than the rate in our study.¹⁷ A major discovery in this study is that majority of these firearm cases were victims that tried to escape from kidnappers. Of late the major crime in Benin City, as in other parts of Nigeria, is kidnapping and both the rich and poor could be victims, because people will always struggle to pay the ransom to save their loved ones. The few cases of homicide in children were cases where armed robbers killed whole families. The magnitude of armed robbery cases may explain an earlier observation that unemployment and poverty are the greatest contributors to violent deaths. Government at all levels must strive to provide employment and reduce the flamboyant life styles exhibited by those in authority. There should be stricter laws about possession and use of arms. Laws about use of dane gun for hunting and gaming need to be reviewed, if not, firearm associated/related violent deaths will continue to rise. The male predominance and young age group involvement in this study is similar to all previous studies,^{5,11,15,16}.

Suicidal type of violent death in this study accounted for 23 (1.5%) cases. Young males also predominated. This rate is similar to that in Port-Harcourt and Ibadan,^{11,12} and smaller than suicidal rates in more developed countries like Scotland which has as high as 400 cases in 5 years.¹⁸ Though due to lack of toxicological investigation, it will not be completely right to state that all the suicides in our study were due to substance ingestion. Of note were that scene visitation and extensive acute gastric ulceration directed/influenced our diagnoses. Of note in this study, is that no case of hanging, use of fireman or jumping from height as reported

in other studies from various parts of Nigeria and the World was seen.^{11,12,18} The low number of suicides may be due to the extended family system, strong taboos against suicides and the general belief that things will certainly get better in the future of our society.

In conclusion, the enormous amount of literature in the lay press about violent death in our society has been modified with this preliminary data about violent /unnatural deaths in Benin City. Significant efforts to reduce violent deaths must include, efforts to reduce unemployment and poverty and improvement of the conditions of roads in and around Benin City.

References

1. Holinger PC. Self-destructiveness among the young: an epidemiological study of violent deaths. *Int. Soc Psychiatry.* 1981;27(4):277-282.
2. Holinger PC. Violent deaths among the young: recent trends in suicide, homicide and accidents. *Am J Psychiatry.* 1979;136(9):1144-1147.
3. Ng' Walali PM, Kibayahi K, Tsunenari S. Practice and education of forensic medicine in Tanzania. In: proceeding of 6th Indo Pacific Congress on legal medicine and forensic science (INPALM), Kobe, Japan. 1998:94-97.
4. Reza A, Mercy JA, Krug E. Epidemiology of violent deaths in the world. *Inj Prev* 2001;7:104-111.
5. Holinger PC. Violent deaths as a leading cause of mortality: an epidemiologic study of suicides, homicide and accidents *AM J Psychiatry.* 1980;137(4):472-476.
6. Meel BL. Certification of deaths at Umtata General Hospital, South Africa. *J Clin Forensic Med.* 2003;10:10-15.
7. Simpson K. Suicide, Accident or Murder? *British Medical Journal.* 1951;661-663.
8. Mac Donald JM. Suicide and homicide by automobile. *Am J Psychiatry.* 1964; 33-37.
9. Meel BL. Incidence and pattern of violent and /or Traumatic deaths between 1993 and 1999 in the Transkei region of South Africa. *J Trauma Injury, Infection and Critical care.* 2004;57(1):125-129.
10. Albrektsen SB, Thomsen JL. Detection of Injuries in traumatic deaths: the significance of medicolegal autopsy. *Forensic Sci. Int.* 1989;42:135-145.
11. Saleye-Fubara D and Nwosu SO. Violent deaths in Port-Harcourt, Nigeria. *Nig J Sur. Research.* 2003;5(3-4):124-128.
12. Amakiri CNT, Akang EEU, Aghadiuno PO, Odesanmi WO. A prospective study of coroners autopsies in University College Hospital, Ibadan Nigeria. *Med Sci. Law.* 1997;37(1):69-75
13. Mandong BM, Manaseh AN, Ugwu BT. Medicologed autopsies in North central Nigeria. *East Afr Med J.* 2006;83(1):626-630.
14. Nzegwu MA, Aligbe JU, Bango AA, Akhiwu W, Nzegwu CO. Patterns of morbidity and mortality amongst motorcycle riders and their passengers in Benin –City Nigeria: One-year review. *Ann Afr. Med. (serial online)* 2008 (cited 2011 Apr 20); 7:82-5 Available from <http://www.anna/safrmed.org/text.asp? 2008/7/2/82/55-675>.
15. Eze UO, Akang EE, Odesanmi WO. Pattern of homicidal coroners autopsies at University College Hospital, Ibadan, Nigeria: 1997-2006. *Med Sci Law.* 2011;51(1): 43-48.
16. Kominato Y, Shimada I, Hata N, Takizawa H, Fujikura T. Homicide patterns in the Toyama prefecture, Japan. *Med Sci Law.* 1997;37(4):316-20.

17. Meel BL. Homicide trends in the Mthatha area between 1993 and 2005. *SAMJ*. 2008;98(6) 477-450.
18. Obafunwa JO and Busuttil A. A review of completed suicides in the Lothian and Borders Region of Scotland (1987 - 1991). *Social Psychiatry and Psychiatric Epidemiology*. 1994;29(2):100 - 106.