

Epidemiology Of Deaths From Injuries In Nineveh Governorate (2008_2012)

وبائيات الوفيات الناجمة عن الإصابات في محافظة نينوى (2012_2008)

Nasir M. Younis /Lecture-Clinical Nursing Sciences Department/ College of Nursing-University of Mosul
Mahmoud M.Ahmed /Assist.Lecture -Clinical Nursing Sciences Department/ College of Nursing-University of Mosul
Ahmed A.Hussein /Lecture -Clinical Nursing Sciences Department/ College of Nursing-University of Mosul
Nasir_younse@yahoo.com

الخلاصة

الهدف :- تهدف الدراسة إلى تقييم وبائيات الوفيات الناجمة عن الإصابات في مدينة الموصل.
المنهجية :- دراسة ذات أثر رجعي لتحديد وبائيات الوفيات الناجمة عن الإصابات في مدينة الموصل. وكان حجم العينة الكلي (5707) ، (4180) ذكور و (1527) إناث. وكانت مدة الدراسة خلال 5 سنوات من (2008-2012). وكان عمر عينة البحث من (1-65) سنة فأكثر. تم جمع البيانات من الطب العدلي و قسم الصحة العامة في محافظة نينوى ودائرة صحة نينوى من استعراض السجلات.
النتائج :- أظهرت نتائج دراسة وبائيات الوفيات الناجمة عن الإصابات في مدينة الموصل أن أعلى نسب الوفيات هي بسبب العنف وشكلت حوالي (49.517%). ويظهر أن الذكور أعلى من الإناث تقريبا (73.243%).
الاستنتاجات :- استنتجت الدراسة بان أعلى نسبة وفيات بسبب الإصابات في مدينة الموصل كانت للفئة العمرية ما بين (15-44 سنة)، وان اغلب سبب الإصابات حدثت بسبب العنف.
التوصيات :- توصي هذه الدراسة إلى إجراء دراسة كاملة للعراق لحساب نسبة الوفيات الناجمة عن الإصابات كأعمال العنف و التفجيرات والطلاق الناري، ومطالبة وزارة الصحة بتسهيل مهمة الباحثين في جمع العينات.
مفردات البحث : وبائية، موت، إصابة، عنف، انفجار.

Abstract:

Objective: The aim of this study is to determine the epidemiology of deaths from injuries in Nineveh governorate.
Methodology: A retrospective study is applied to determine the epidemiology of deaths from injuries in Nineveh governorate. The sample consists of (5707), (4180) male and (1527) female. The period of the study was (5 years), from (2008 to 2012). The sample aged between (1_ 65) years old or more. Data collected from Forensic Medicine Center, Primary health care sectors in Nineveh governorate, and Nineveh Health Department, by reviewing the available records. Descriptive and inferential statistical approaches are used for data analysis (Frequency, Percentage).
Results: The results of the study show that the epidemiology of deaths from injuries in Nineveh governorate is in highest percentage from violence (49.517 %), demonstrating that male injuries are higher than that of female injuries (73.243%).
Conclusion: This study concluded that the high rate of epidemiology of deaths from injuries in Nineveh governorate aged between (15-44 years of age) and the majority causes of injury deaths due to the violence.
Recommendation: - The study recommends that the procedure of complete study of calculation mortality rate in Iraq, from injuries like (violence, explosion and bullet injury), requires the cooperation of Ministry of Health to facilities data collection for the researchers, which is important to enable them to fulfill their task in this field

Keyword: Epidemiology, Death, Injury, Violence, Explosion

INTRODUCTION

Injuries are a major cause of avoidable death in many countries of the world. It is estimated that in the year 2000 more than 6 million deaths resulted from accidental injuries worldwide, with 3.8 million unintentional and 2.2 million intentional injuries⁽¹⁾. The spectrum of death and diseases has changed in recent decades in many countries^(2,3) and deaths from injury have become a serious concern. Most injuries are preventable and in

many developed countries injury prevention has been established as a national priority and deaths rates from injuries have been falling steadily for many years. The collection of more data on injury and ill-health caused by accidental injuries is a priority ⁽⁴⁾. Injuries account for about 12% of the world's burden of disease ⁽⁵⁾. Injuries, irrespective of their intent or cause, have a major impact on the health system which provides care and support for victims⁽⁶⁾. In many developing countries, particularly in Asia, documentation of health statistics is limited and as a result the effect of trauma is poorly understood ⁽⁷⁾. In some communities have strong cultural pressure not to report violence and victims are often reluctant to discuss violent experiences like rape due to shame, fear, and loss of self-esteem.⁽⁸⁾ There are several articles describing different aspects of trauma in the Islamic Republic of Iran, e.g. road traffic accidents (RTA), pediatric trauma, burns, pre hospital care, but comprehensive studies which give a broader view on patterns of trauma in the country are limited ⁽⁷⁾. In 1996, the World Health Organization assembly declared violence a leading global public health problem⁽⁹⁾. This declaration acknowledges the necessity of implementing a global strategy, to address violence as a health issue that can be prevented. The first step toward building the foundation necessary to control and prevent violence is describing the magnitude and nature of the problem ⁽¹⁰⁾. The number of people dying in Iraq has continued to escalate. The proportion of deaths ascribed to coalition forces has diminished in 2006, although the actual numbers have increased every year. Gunfire remains the most common cause of death, although deaths from car bombing have increased.⁽¹¹⁾ In today's world, crime and violence has a great proportion of human lives. In spite of advancing civilization, killing self or someone is so easy in these days. With the gradual improvement of our society.

Objectives of this study to determine the epidemiology of deaths from the injuries in Nineveh governorate according to years (2008-2012), and determine the epidemiology of deaths from the injuries in Nineveh governorate according to the cause, and identify the demographical data for deaths from injuries in Nineveh governorate (age, sex).

METHODOLOGY:-

A retrospective study design was adopted to achieve the objectives of the present study for the period of Dec. 1st 2012 throughout Feb 25th 2013. The sample of the study consists of (5707), (4180) male and (1527) female. Forensic Medicine Centers in Nineveh governorate and primary health care centers were used for data collection consisting of two parts, part one socio demographic characteristics including gender and age. The second part is concerned to the types of injury that cause deaths. Cause of death was classified according to 3-digit coding system of the International classification of diseases (ICD-10) (29). The collected data was arranged analyzed and presented in tables by using frequency and percentage. This study also limited in that we lacked important information about the demographic characteristics and circumstances of violence death that would have allowed for more complete and informative description of these events.

RESULTS:-

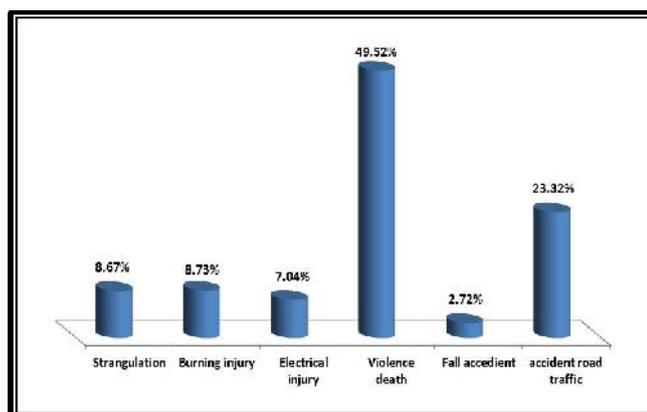


Figure (1): Distribution of the study subjects according to the causes of death. This figure indicated that the violence death is a major cause in injury death (49.517%).

Table (1):- Epidemiology of deaths from injuries in regard to years (2008_2012)

| Variables | 2008 | | 2009 | | 2010 | | 2011 | | 2012 | |
|---------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | No | % |
| Road traffic accident | 233 | 21.7 | 237 | 28.08 | 315 | 26.02 | 236 | 20.13 | 310 | 22.06 |
| Fall accident | 30 | 2.79 | 28 | 3.32 | 35 | 2.89 | 27 | 2.31 | 35 | 2.48 |
| Violence death | 556 | 51.77 | 439 | 52.02 | 629 | 51.94 | 574 | 48.98 | 628 | 44.65 |
| Electrical injury | 85 | 7.91 | 72 | 8.53 | 91 | 7.51 | 68 | 5.80 | 86 | 6.13 |
| Burning injury | 81 | 7.55 | 8 | 0.95 | 4 | 0.33 | 196 | 16.73 | 209 | 14.86 |
| strangulation | 89 | 8.28 | 60 | 7.10 | 137 | 11.31 | 71 | 6.05 | 138 | 9.82 |
| Total injuries | 1074 | 100% | 844 | 100% | 1211 | 100% | 1172 | 100% | 1406 | 100% |
| Percentage of total death | 1074 | 18.81 | 844 | 14.78 | 1211 | 21.21 | 1172 | 20.53 | 1406 | 24.63 |

The table shows that the majority of study subjects that leading to death because of violence, and the highest rate of death in 2012,(24.63%)

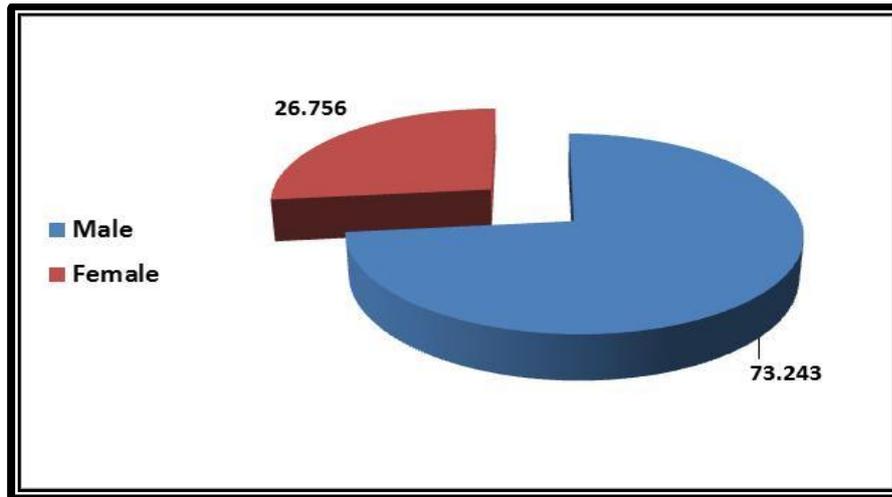


Figure (2): Distribution of the study subjects according to their gender. This figure shows that the majority of injury death are man than women(73.243%),

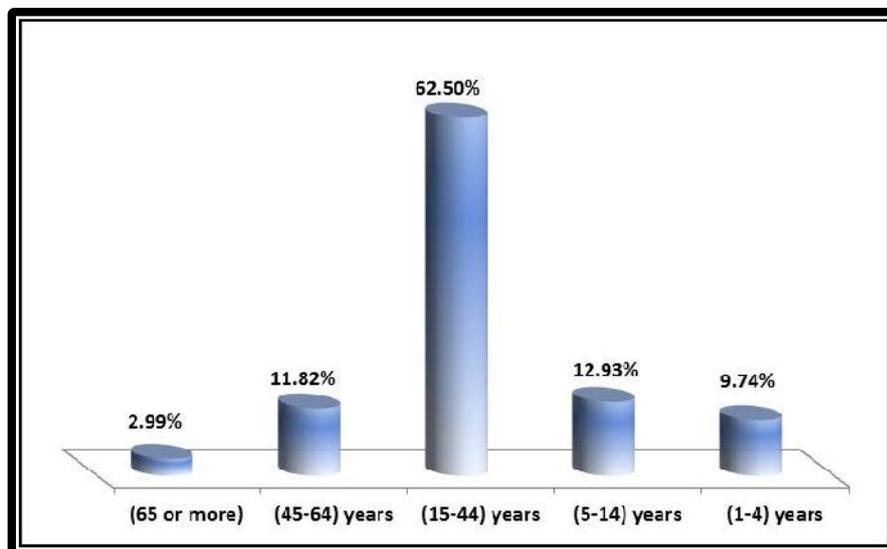


Figure (3): Distribution of the study subjects according to their age group. This figure indicated that the young people who aged between of 15 and 44 years are the highest percent of death resulting from injury (62.50%).

DISCUSSION

This study shows that the violence death is the most cases of death in Nineveh governorate,(49.517). Figure (1). Another study in Iraq indicates excess mortality are attributed mainly to an increase in the violent death rate; however, an increase in the non-violent death rate was noted in the later part of the post-invasion period (2005–2006). The attributed cause of these deaths has also changed with time. Other survey in Iraq showed that gunfire is the major cause of death in Iraq, accounting for about half of all violent deaths. The crude mortality rate in the pre-invasion period was 5.5 per 1000 people per year (95% Crude mortality rate 4.3–7.1) and for the overall post-invasion period was 13.3 per 1000 people per year (10.9–16.1)^(12,13)

An increase of violent death was noted during the occupation, and violence was geographically widespread, with violent deaths reported in 15 of 33 clusters (45%).

Violence-specific mortality rate went up 58-fold (95% Crude mortality rate 8.1–419) during the period after the invasion⁽¹⁴⁾.

This study shows that the higher percentage of death resulting injury in Nineveh governorate in 2012, (24.63), table (1). The major cause of increased rate of injury death in Nineveh governorate resulting from increased the violence especially in post-invasion. Also other study in Iraq showed that the second higher rate of death in Nineveh governorate after Baghdad.⁽¹⁴⁾

Present study indicated that the majority of injury death are man than women (73.243%), figure (2). Other report about the injury death accepted with our study was estimated at 520,000 globally, males accounted for 77%, with highest rate among males aged 15-29, estimated at 19.4 per 100,000 population 30-44 years, 18.7 per 100,000 populations.⁽²⁾ Previous study in Iraq is agreement with this study, indicated that as general deaths in males and were in the middle age groups.⁽¹⁴⁾

Injury death that increasing in Nineveh governorate particularly among young men (15-44) years,(62.5%).and the violence is a common causes of death, Figure (3). Young people between the ages of 15 and 44 years—the most economically productive members of the population—account for almost 50% of the world's injury-related mortality⁽⁷⁾. Many of the Iraqis reportedly killed by violence 28 of 61 killings (46%) involved men age 15–60 years, were children younger than 15 years, four (7%) were women, and one was an elderly man. Other study in India showed that the highest death resulting from violence in aged (21-30)years (35.79%), were second largest group (20,30%), (31-40) years.⁽¹⁵⁾. This study concluded that the high rate of epidemiology of deaths from injuries in Nineveh governorate aged between (15-44 years of age).

CONCLUSION:

The results of this study indicate that the majority causes of deaths due to the violence injury, the epidemiology of deaths from injuries in Nineveh governorate in males is more than female and the maximum ratio of deaths incidences was in the year 2012.

RECOMMENDATION:

The study recommends that other researcher should complete study in Iraq for calculating mortality rate because injury as(Violence, Explosion and Bullet injury) and Ministry of Health is required to facilities the collection of data for the researcher and regarding that an important issue.

REFERENCES

1. Murray CJL, Lopez AD, eds. The Global Burden of Disease: a comprehensive assessment of mortality and disability from diseases, injuries and risk factors in 1990 and projected to 2020. Cambridge, Massachusetts, Harvard University Press on behalf of the World Bank and WHO, 2006.
2. Arias, E. and Myier, C. Deaths: final data for 2001. National vital statistics reports, 2003, 52(3):1–115.
3. Zhao Z, Svanstrom L. Injury status and perspectives on developing community safety promotion in China. Health promotion international, 2003, 18(3):247–53.
4. Kletz TA. Learning from accidents, 3rd ed. Oxford, Butterworth–Heinemann, 2001:1–12.
5. Peden M, McGee K, Sharma G. The injury chart book: a graphical overview of the global burden of injuries. Geneva, World Health Organization, 2002.
6. Injuries in the WHO European Region: burden, challenges and policy response. Background paper for the 55th Session of the WHO Regional Committee (RC55). 2nd draft for comments. Geneva, World Health Organization, 2005.
7. Zargar M. Urban injuries in Tehran: demography of trauma patients and evaluation of trauma care. Injury, 2001, 32(8):613–617.
8. World Health Assembly. World Health Assembly resolution 49.25. Prevention of violence: a public health priority, Forty-ninth World Health Assembly, Geneva, 25 May 2002.
9. Moini M, Rezaishiraz H, Zafarghandi MR. Characteristics and outcome of injured patients treated in urban trauma centers in Iran. Journal of trauma, 2000, 48(3):503–507.
10. Mercy JA, Rosenberg ML, Powell KE, et al. Public health policy for preventing violence. Health Affairs 2003;12 (4):7-29 (winter).
11. Gilbert, B. Riyadh, L. Shannon, D. and Roberts, L. Mortality after the 2003 invasion of Iraq: a cross-sectional cluster sample survey. www.thelancet.com Published online October 11, 2006
12. Murray CJL, Lopez AD. Estimating causes of death: new methods and global and regional applications for 2000. In: Murray CJL, Lopez AD, eds. The global burden of disease. Cambridge, MA: Harvard University Press, 1996: 117-200.
13. CIA 2003 Factbook entry for Iraq. <http://permanent.access.gpo.gov/lps35389/2003/iz.html> (accessed Oct 2, 2006).
14. US Agency for International Health and US Census Bureau. Global population profile: 2002. Washington, DC: US Census Bureau, 2004.
15. Les, R. Lafta, R. Richard, G. Khudhairi, J and Gilbert, B. Mortality before and after the 2003 invasion of Iraq: cluster sample survey. www.thelancet.com Vol 364 November 20, 2004.