International Emergency Nursing 23 (2015) 213–217

Contents lists available at ScienceDirect

International Emergency Nursing

journal homepage: www.elsevier.com/locate/aaen

High incidence of interpersonal violence in Northwest Ethiopia: A cross-sectional study

Bewket Tiruneh Tadesse RN, BSc, MSC (Lecturer) [a,*],
Berihun Assefa Dachew RN, BSc, MSC, MPH (Assistant Professor) [b],
Berhanu Boru Bifftu RN, BSc, MSC (Lecturer) [a],
Mengistu Mekonnen Kelkay RN, BSc, MSC (Lecturer) [a],
Kasaw Chuffa Adane BSc, MSC (Lecturer) [c], Diane L. Gorgas MD (Associate Professor and Residency Program Director) [d]

[a] Department of Nursing, College of Medicine and Health Science, University of Gondar, Gondar, Ethiopia
[b] Department of Epidemiology and Biostatistics, Institute of Public Health, University of Gondar, Ethiopia
[c] College of Medicine and Health Sciences, School of Biomedical and Laboratory Sciences, Unit of Quality Assurance and Laboratory Management, University of Gondar, Gondar, Ethiopia
[d] Department of Emergency Medicine, The Ohio State University's Wexner Medical Center, Columbus, OH, USA

ARTICLE INFO

Article history:
Received 7 July 2014
Received in revised form 19 November 2014
Accepted 25 November 2014

Keyword:
Incidence
Interpersonal violence
Factors
Emergency department

ABSTRACT

Background: Interpersonal violence has devastating consequences for the mental, physical and sexual health of the victim. It is a leading cause of injury in east Africa. Studies in Ethiopia report that the most common cause of injury was interpersonal conflict. Our objective was to study the incidence of interpersonal violence related injury and associated factors among patients visiting the emergency department of University of Gondar Hospital, Northwest Ethiopia.

Methods: A cross-sectional institutional based study design was employed from November 2013–June 2014. The source population was a cohort sample of all patients presenting for treatment of a traumatic injury. Data were collected using injury surveillance guidelines developed by the World Health Organization. Bivariate and multivariate logistic regressions were performed to identify the presence and strength of association. Odds ratio with 95% confidence interval was computed to determine the level of significance.

Results: The overall incidence of interpersonal violence related injury was 28.5% of all emergency department trauma patients. Multivariate logistic regression shows that conflict in the family prior to the event [AOR = 9.9 (95% CI: 4.433–9.536)], poor behavioral control [AOR = 2.5 (95% CI: 1.192–5.460)], alcohol use [AOR = 3.406 (95% CI: 1.813–6.398)] and paternal education [AOR = 2.441(95% CI: 1.209–4.929)] were found to be independently associated with interpersonal violence related injury.

Conclusion and recommendation: The incidence of interpersonal violence related injury was high. Counseling and education on conflict resolution methods should be given for the community using mass media.

1. Introduction

According to the World Health Organization (WHO) interpersonal violence can be defined broadly as the intentional use of physical force against oneself, another person, or against a group or community, with the aim of resulting in injury, death, psychological harm, mal-development or deprivation (Krug et al., 2002).

Interpersonal violence is a cause of suffering and injury which has devastating consequences for the mental, physical and sexual health of the victim. It affects individuals, parents, spouses, educators, researchers and citizens. It occurs in a wide range of contexts and includes for example, intimate partner violence, violent crime, rape and other sexual violence, child abuse/neglect, workplace violence and elder abuse (Australian Government (AG), 2009)

There are many historical references which support a long-standing prevalence of societal violence. One of the earliest references to injury and expression of man's innate violence is the slaying of Abel by Cain (King and Bewes, 1993). No country or community is untouched by violence. Images and accounts of violence pervade the media; it is on our streets, in our homes, schools, workplaces

* Corresponding author. Department of Nursing, College of Medicine and Health Science, University of Gondar, Gondar, P.O. Box 196, Ethiopia. Tel.:+251 913201985; fax: +251 058 114 12 40.
E-mail address: jeryfiker21@gmail.com (B.T. Tadesse).

http://dx.doi.org/10.1016/j.ienj.2014.11.007
1755-599X/

and institutions. Violence is a universal scourge that tears at the fabric of communities and threatens the life, health and happiness of us all. Each year, more than 1.6 million people worldwide lose their lives due to violence (World Health Organization (WHO), 1999).

For each who dies as a result of violence, many more are injured and suffer from a range of physical, sexual, reproductive and mental health problems. Violence is among the leading causes of death for people aged 15–44 years worldwide, accounting for about 14% of deaths among males and 7% of deaths among females (World Health Organization (WHO), 1999). The social, societal and financial impact of violence, especially the impact on the young, otherwise healthy and therefore most productive members of a community is devastating.

In 2000, an estimated 520,000 people were killed in acts of interpersonal violence in the world (Heise and Gottemoeller, 1999).

Data about non-fatal cases are often incomplete, particularly for types of interpersonal violence that carry social stigma (Indian Institution of Management Bangalore (IIMM), 1999). The patterns of interpersonal violence differ markedly across the world. While the abuse of children and elderly people, as well as violence between intimate partners are common problems in every country, the rates of youth violence are exceptionally high in Africa compared with other regions. Certain forms of sexual violence are more evident in Africa than elsewhere (Stephen, 2001).

In South Africa reports show that injury was the most common cause of death in those aged 5–14 years (World Health Organization (WHO), 2002). One study in Eldoret, a city in western Kenya, noted that the leading cause of injury was assault (40%) among a population of 1304 patients presenting to the district hospital with a chief of injury (Christopher and Alan, 1996).

In Uganda, injuries and violence have been ranked among the top six causes of mortality, 13–21% of injury deaths are intentional, with proportional youth victimization rates ranging between 14% and 24%. Recent media reports seem to indicate an upsurge in youth victimization in Uganda, especially child sacrifice, school arsons and strikes, child abductions, child sexual violations, corporal punishments, and gang activities (Odero and Kibosia, 1995).

A study in Addis Ababa, Ethiopia found that interpersonal conflict was the most common cause of injury after road traffic accidents (Mulat and Tadios, 2003). Another study in North Gondar Administrative Zone of Ethiopia report that the most common cause of injury was interpersonal conflict (Osman et al., 2003).

A major limitation in the effort to characterize injury due to violence is the lack of accurate data on interpersonal violence in low-income and middle-income countries (Krug et al., 2000).

Multiple studies highlight the difficulty of obtaining accurate data on all categories of trauma and injury in sub Saharan Africa. Interpersonal violence is particularly difficult to assess, because of stigma related to its reporting (Forjuoh et al., 1998).

Thus the objective of this study is to initiate an organized interpersonal violence related injury data bank which can provide a comprehensive assessment of violence within the region as tracked through emergency department patients. The registry can be used to direct staff training on how to handle injury cases in general and interpersonal violence related injury in particular and it is also pivotal for resource allocation. Efforts to effectively plan injury prevention interventions are limited by a lack of understanding of the prevalence, demographics, and morbidity and mortality of the community violence profile in East Africa. This paucity of data and knowledge hinders efforts at prevention, and limits family education, resources, and response to violence. The interpersonal violence registry can ultimately be de-identified and shared with public authorities to develop injury prevention programs and aid in drafting effective legislation against violence. Thus the incidence of interpersonal violence related injury can be decreased. Therefore the purpose of this research was to determine the incidence of interpersonal violence related injury and associated factors among patients visiting the Emergency Department of University of Gondar Hospital, Northwest Ethiopia.

2. Methods and study period

This study was a cross-sectional study and it was from November 2013 to June 2014.

2.1. Study area

The study was completed at the University of Gondar hospital located in the historic town of Gondar, Ethiopia. The hospital services a population of 177,487 in the city itself, and is a referral center for the surrounding region and a total of 4 million people. It is a 400 bed hospital that provides tertiary level referral treatment and 24 hours emergency services. It has a range of specialties including pediatrics, surgery, gynecology, psychiatry and HIV care. As a University Hospital, it plays an important role in teaching medical, nursing and other health science students in undergraduate programs and in recent years has played a pivotal role as a center of training for postgraduate students in various disciplines like residency program in medicine and other health sciences.

2.2. Source population and study population

The source population and study population were all injured patients in the emergency department of University of Gondar Hospital.

2.3. Inclusion and exclusion criteria

Patients who presented to the emergency department of University of Gondar Hospital because of injury were included in the study. Those injured patients who needed immediate transfers to the operation room and those with repeated attendance after the first visit were excluded.

2.4. Sample size determination and sampling method

A single population proportion formula is used to determine the sample size and the following assumptions made: confidence level 95% and absolute precision or margin of error to be 5%. The prevalence of interpersonal violence related injury is 30.9% (Woldemichae and Berhanu, 2011). Considering a 5% non-response rate, the final sample size becomes 379 and systematic random sampling technique was used to select the study participants. Participants were selected every third by using the entry sequence to the physician office.

2.5. Data collection method

The data were collected by interviewing (face to face) the injured patients and any available informants, eye witnesses, attendants and families using the data collection instruments in the emergency department of the hospital and there was also annotation of the appearance of clinical intoxication of the patient. A chart review for clinical data including descriptors and severity of the injury were carried out. The data collectors were six BSc nurses working in other departments of the University of Gondar hospital.

2.6. Data collection tool and data quality management

Our data collection tool was adapted from an injury surveillance guideline document developed by experts in 2001 through the World Health Organization (WHO) (2001). There was some modification in order to meet the local language and culture. Training was given for data collectors and supervisors. Supervision was carried out by the principal investigators. Correctly completed data were