

(Q86) Vulnerable Populations: A Social Ecological Approach to Nursing Research of Chronic Illness in Disaster Management

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Statement of Purpose: This presentation describes the need for a social ecological approach to nursing research of disasters and the impact on the health of vulnerable populations with chronic illnesses. Such a framework ranges from individual, social networks, community, and societal dimensions. Chronic illnesses and disasters both have multi-factor etiologies and their complexities merit this broad approach. This presentation examines the social forces that predispose groups of people to be more vulnerable than others.

Learning Objectives: The learner will be able to: (1) describe the social forces that predispose groups of people with chronic illnesses to be more vulnerable than others to the impact of disasters; (2) describe interdependent dimensions of the social ecological model at which disasters and determinants of health may be understood broadly; and (3) recognize the impact of this approach to nursing research in addressing the need of vulnerable populations with chronic illnesses during a disaster.

Keywords: chronic illness; disaster management; emergency health; nursing; research; vulnerable populations

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(Q87) Investigation of the Frequency of Different Emergency Calls in Northern and Southern Geographical Areas of Tehran

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Introduction: Urban society hosts many different cultural, economic, and social factors that may be the cause of specific emergency calls. Because the process of decision-making should be based on necessity, it is important to gather and organize information from the 115 emergency centers in each area and identify the kinds of medical expertise required to cope with the health-related problems of that area.

Methods: Four emergency teams, each consisting of two trained technicians, were equipped with one vehicle. Two of the teams were deployed to southeastern Tehran while the other two were deployed to the northeast. These teams were commissioned to transfer patients to the closest hospital after receiving emergency calls. After assigning patients into categories of cardiovascular, bronchitis, non-drug abuse suicidal, poisoning, and accidents, the following results were observed.

Results: Car crashes were the most frequent causes of emergency calls both in southern and in northern areas of Tehran. The number of accidents and the related frequency of death and injury were greater for northern Tehran and the causes for most of these cases were accidents. The only cause of emergency calls for which there were more women than men was, suicide. In both the

north and south areas, car accidents and poisonings happened mostly to those between 18 and 27 years of age. In northern areas of Tehran, addictive drug abuse was more frequent among men, while non-addictive drug abuse was more frequent among women.

Keywords: emergency calls; Iran; public health; social

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(Q88) Mortality Rates for Pedestrian-Motor Vehicle Collisions in Mexico City, 2004–2006

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Objective: To determine the factors related to the mortalities caused for pedestrian-motor vehicle collisions in Mexico City from 2004–2006.

Methods: Information was gathered from death certificates of DGE SS. When the cause was recorded under the code “ICD X: V01-V09”, the INEGI was used. The net, specific, adjusted, and registered rates were calculated. The genre, age, residence, and the accident site and time were analyzed.

Results: Of 2,119 deaths, 68% (1,452) were residents of Mexico City. The average specified fatality was 2.5 (CI 95% 2.20–2.75). Men had a higher risk than women. The mortality rate increased with age; those 74 years of age had a rate of 185.3 for men and 75.6 for women/per one thousand population. Of the deaths, 65% occurred in the 15–64-years-old age group. The net rate was 16.6/one thousand from a general population. The districts with the highest adjusted rates were Cuauhtemoc, Xochimilco, and Venustiano Carranza with 22.6, 20.4, and 20.3/one thousand, respectively. The internal and external rates indicate that the districts of Gustavo A. Madero and Miguel Hidalgo have twice the risk of death in the same district. The fatalities occurred on Friday, Saturday, and Sunday, making a total of 50%. Only 749 (35.3%) recorded the accident site. Iztapalapa and Gustavo A. Madero are notable with 19% and 16% of the total fatalities, respectively.

Conclusions: The high mortality rate of people at a productive age impacts the stability and integrity of the families. Hardly any data are recorded on accident sites. Therefore, it is necessary to improve the information-gathering systems with specific means of measuring prevention.

Keywords: accident sites; Mexico City; mortality rates; pedestrian-motor vehicle collisions; public health

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(Q89) Missed Opportunities: HIV Testing in a Bronx, New York Emergency Department

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Background: Undiagnosed HIV infection is a serious and growing problem in the world, but particularly in places like the South Bronx in New York City where a vulnerable, primarily African-American and Latino population, suffers some of the highest rates of newly diagnosed HIV infections in the United States.

Objective: In this study, the lack of HIV testing and counseling in a South Bronx emergency department is addressed by demonstrating the frequency of high-risk

behaviors in a population with a high HIV prevalence. Site-based policy recommendations for HIV testing in the emergency department at St. Barnabas Hospital will be outlined as a way to target high-risk populations for HIV testing and prevention.

Methods: Patients registered in the emergency department who volunteered for the study were asked questions from a questionnaire designed for the study.

Results: One hundred patients were interviewed; 45% admitted to using a combination of two drugs/tobacco, 57% admitted either not using a condom in their last sexual encounter or using a condom that broke, and 45% admitted to having a sexually transmitted disease in the past.

Conclusions: A great potential exists for risk-based, rapid HIV testing in urban emergency departments like St. Barnabas Hospital in the Bronx, where the prevalence of HIV in the general population is 1.6% and risk behavior remains high.

Keywords: HIV testing; human immunodeficiency virus; public health; sexually transmitted infections; urban health

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(Q90) Using Routine Emergency Care Data for Public Health Surveillance and Health Threat Preparedness—The European Project SIDARTHA

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Introduction: The European Commission co-funded project SIDARTHa (Grant Agreement No. HT 2007208) aims at improving the timeliness and cost-effectiveness of health threat detection by providing a basis for systematic syndromic surveillance in Europe. The project group conceptualises, develops, implements/tests, and evaluates a real-time Web-Geographic Information System-based syndromic surveillance system that automatically monitors routinely collected emergency department and ambulance service data. During the conceptualization phase, international state-of-the-art and European possibilities and needs are analysed. The surveillance system is implemented during the second phase. Initial results are presented here.

Methods: The project group, consisting of emergency care professionals and health researchers from 12 different European countries, discusses the possibilities of emergency

care data for syndromic surveillance during expert workshops. By analyzing long series of historic data from the participating emergency care providers, the baselines and thresholds for the syndromes are calculated and tested statistically.

Results: A set of communicable and non-communicable health threats and respective syndromes that can be detected using routine European emergency care data was identified. Detailed rationales, coding principles, case definitions for each syndrome and inclusion/exclusion criteria were defined. Spatial-temporal baselines and thresholds considering the regional specificities and individual emergency institution's data options were defined and tested.

Conclusions: The consortium analyzed the possibilities of routine emergency data to detect health threats in Europe. Based on the results of a Delphi-type study investigating public health authority demands, the SIDARTHa syndromic surveillance system will be designed and implemented.

Keywords: emergency care; Europe; public health; routine data; syndromic surveillance

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(Q91) Comparative Evaluation of Road Traffic Crashes in Ghana and Nigeria (1994–1998)

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Background: The burden and pattern of injuries and deaths in Africa and other developing countries is documented poorly. Road traffic accidents (RTCs) are a leading cause of death in Nigeria. In 1998, developing countries accounted for >85% of all deaths due to RTCs globally, and 96% of all child deaths. The aim of this study was to compare patterns of crashes in Nigeria and Ghana. Ghana has a population of 20 million people with an estimated vehicular population of about 600,000. Nigeria's population is about 150 million with a vehicular population of about two million.

Methods: Data from the Federal Road Safety Commission Nigeria, Save Accident Victims Association of Nigeria, the National Road Safety Commission of Ghana, and the Motor and Traffic Unit of the Ghana Police Force were collected from the period 1994–1998. Some data also were collected from the accident and emergency departments of leading public hospitals and were categorized into years, total number of cases reported, those killed, those injured, sex distribution, and interventions. These were compared between both countries.

Results: There were 86,253 crashes reported in Nigeria, with 91,485 persons killed and 82,824 persons injured. In Ghana, there were 44,293 cases reported with 5,333 persons killed and 53,921 persons injured. For both countries, rates of crashes, deaths, and injuries rose progressively, but deaths peaked for Nigeria in 1997.

Conclusions: Comparatively, Ghana had a higher incidence of RTCs, taking into consideration the population of both countries. Despite the disparity in the emerging figures, causative factors are similar in both countries, with speeding accounting for most. Efforts to combat the prob-