INJURIES PRESENTED AT PRIMARY CARE SETTINGS IN OMAN

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Abstract

Objective:
This study aims to measure the rate, types, and causes of injuries presented at primary care settings in the Muscat governorate, in Oman.

Methods:
A cross-sectional retrospective study will be carried out where all patients who attended health center in Muscat from the period of 1st January 2010 to the 31st December 2010 will be identified from the electronic medical records. Patients identified with any type of injury will then be selected for further data collection with their age and gender recorded. Details such as the type, cause and nature of the injury at the clinic will be gathered from the clinical notes.

Conclusions:
Commencing a national injury survey which will encompass a representative sample of both public and private healthcare settings in the country, in addition to a household injury survey in order to construct a clearer insight into common injuries, their potential causes and consequences, in the country is recommended.

Research question:
What are the rates, types, and causes of injuries presented to primary care centers in the Muscat governorate in Oman in 2010?

This study is feasible. The question is answerable. I can easily have an access to all the materials I will need to do the study with enough subjects. As it is retrospective, less time and money is needed also.

The area of injuries in primary care is currently on special attention in my country because of role primary care plays in injuries management particularly road traffic accidents injuries.
This study in my opinion will point to the magnitude of the problem in primary care settings in my country. As the study is retrospective descriptive study it does not subject subjects to excess risks. It will approved by ethical committee in research department in my ministry of Health. I hope, seeing the results of this study will be a beginning to clear health policy and programs to deal with injuries attending primary care settings in Oman.

Background:
Injuries are among the most common preventable health problems worldwide. According to the World Health Organization (WHO), injuries account for 9% of global mortality annually with more than five million cases reported resulting from different kinds of injuries.\(^1\) By the year 2020, the proportion of DALY related to injuries is expected to increase considerably and is estimated to contribute to 20% of all DALY losses.\(^2\) Indeed, injuries are still considered to be a major cause for consultation at primary care settings and emergency departments leading to hospitalizations.\(^3\) In the Sultanate of Oman, road traffic injuries (RTI) in particular, contribute substantially to the high rates of morbidity and mortality.\(^4\) In the year 2008, DALYs resulting from injuries in Oman were estimated to be approximately 5.7 DALY per 1000 capita.\(^5\) In 2009, the outpatient morbidity from injuries accounted for 4.4% of the total number of patients presented to primary care institutions and 7.6% of the total hospital admissions.\(^6\) Easy access to healthcare services for patients and their families is the hallmark of the primary care system.\(^7\) For this reason, primary care centers have become the first point of contact for the majority of emergency cases, including injuries.\(^7\) In Oman, the accessibility of primary healthcare to the general population has ensured the integral role exhibited by primary care centers in the management of some emergency cases such as injuries.\(^6\) Although for many years now, Oman has had a well-established primary healthcare system, the epidemiologic profile of all related
injuries in primary care settings has not been explored. This study intends to determine the rate, type, and cause of injuries presented to primary care centers in the Muscat governorate. It is important to do such study to describing clear profile to the magnitude of injuries in primary care. So, can clearly implement and evaluate interventions that are designed to efficiently and effectively provide care to injuries presenting to primary care settings. This can achieve by providing specific training and instrument to help primary care physicians to deal efficiently with injuries.

**Study design**

The study is a cross sectional retrospective study. By doing cross sectional retrospective study I can indicate how common injuries in primary care are in a simple, representative, ethically safe and inexpensive way, in a short period of time. Also, I can make a comparison by age, gender and time period. This design is not without disadvantages, as I may not be able to get some missing data from the electronic data base like level of education, acute management at time of injury outside the health center…ect. We can only establish association at most, not causality between different variables. This cross-sectional study will be conducted between 1st January 2010 and 31st December 2010. Data will be retrieved from the Electronic Medical Records System (Al-Shifaa) for all patients who had attended the health center and presented with injuries during this period. In retrieving the relevant patient data, all related codes under the classification of injuries will be used to search for the diagnosis (ICD-10) of the injuries, including fall, trauma, burns, road traffic accidents, fractures, wounds, sprains, strains, dislocations and concussions. The rate and causes, as well as the nature, treatment and disposition of injuries treated at the health center were extracted from the clinical notes by 2 trained physicians.
**Population of interest and sampling method:**

- Target population is: all patients who had attended the health center and presented with injuries during the study period.
- Using 95% confidence level and $P = .5$, population size = 500,000
- Calculated sample size = 400 person.
- Using Yamane simplified formula.
- Due to easy availability and feasibility of data in a central electronic database, all patients attending to the allocated primary care centers will be included in the study.
- This includes: all ages, both genders, all nationalities, attending at any time of the working hours, suffered any kind of injury, Involved any part of the body, all ranges of severity of injury and intentional or non-intentional injuries.

**Limitations:**

This study was not without limitations, however, and the major limitation could be regarded as the tendency to generalize and extend the study findings to other primary care centers in the country. Since this was only a study will be conducted at 4 health centers, the findings are therefore limited to that 4 centers and cannot be generalized to other settings which may have different data due to different population socio-demographics. In addition, the health centers are located in the Muscat governorate, where emergency services of secondary and tertiary hospitals are in close proximity, which is not the situation always in other parts of the country.
Feasibility

Looking into the study design I had chosen to conduct this study with, we can be sure that this study is feasible. The data is easily accessible through central electronic data of Muscat governate with enough subjects. As it is retrospective less time and money is needed to do such study. The data will be collected by two medical doctors who will be trained to retrieve the needed data from the electronic system.

Significance:

In my country (Oman), the accessibility of primary healthcare to the general population has ensured the integral role exhibited by primary care centers in the management of some emergency cases such as injuries. Although for many years now, Oman has had a well-established primary healthcare system, the epidemiologic profile of all related injuries in primary care settings has not been explored. From my observation we face variety of injury cases in our practices, which in most are due to RTAs and home related injuries. To make clear planning strategies to face such cases with good preventive and management strategies in primary care settings, we faced the need to have clear data describing the problem first.

The data will be most important to the primary care strategy planers, primary care workers and health leaders.

References


