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Reasons for non-urgent presentations to the emergency department in Saudi Arabia

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ABSTRACT

Background: The majority of patients who attend emergency departments (EDs) in Saudi Arabia have non-urgent problems, resulting in overcrowding, excessive waiting times and delayed care for more acutely ill patients. The purpose of this research was to examine the reasons for non-urgent visits to a Saudi ED and factors associated with patient perceptions of urgency.
Methods: We administered a survey to 350 consecutively presenting Canadian Triage and Acuity Scale (CTAS) IV or V adult patients at a large tertiary ED in Riyadh region, Saudi Arabia, during 25 days of data collection in March 2013.
Results: Over half of the sample usually visited the ED to access healthcare. The most common reasons for attending the ED were not having a regular healthcare provider (63%), being able to receive care on the same day (62%), and the convenience of and access to medical care 24/7 (62%). Approximately two-thirds of CTAS V patients and one-third of CTAS IV patients believed their conditions were more urgent than their triage nurse rating.
Conclusion: Multiple factors influence non-urgent visits to the ED in the Saudi context including insufficient community awareness of the role of the ED and perceived lack of access to primary healthcare services.

1. Introduction

Overcrowding in the emergency department (ED) is dangerous. Periods of high ED crowding are associated with increased adverse events and patient mortality, greater inpatient length of stay and hospital costs (Sun et al., 2013). In Saudi Arabia, increasing utilisation of EDs for non-urgent problems is the leading cause of overcrowding (Qureshi, 2010). Although Saudi citizens have access to unlimited, free medical care through a network of primary healthcare centres (PHCCs) throughout the country, Middle Eastern prevalence studies have found between 59.4% (Siddiqui and Ogbeide, 2002) and 88.7% (Shakhatreh et al., 2003) of patients presenting to EDs are categorised as non-urgent. This can result in prolonged waiting times and delayed intervention for more acutely ill patients (Elkum et al., 2009). One study examining trends in ED utilisation over a 3-year period in a hospital in the Eastern region of Saudi Arabia found that the number of visits increased by approximately 30% and of these, approximately 60% of patients presented with non-urgent conditions (Rehmani and Norain, 2007). Length of stay also increased over this period and some non-urgent patients had multiple visits to the ED (Rehmani and Norain, 2007).

Given the growing evidence for overcrowding in Saudi EDs, it is important to examine the factors that influence patient preferences for visiting the ED with non-urgent problems (Pines et al., 2011). Recent systematic reviews have identified younger age, convenience of the ED compared with alternatives, not having a regular physician or source of healthcare, and negative perceptions about alternatives such as primary care providers all play a role in driving non-urgent ED use (Carret et al., 2009; Uscher-Pines et al., 2013), but these factors may not generalise to the unique features of the Middle Eastern healthcare system. Possible contributors suggested in the Middle Eastern literature include: the desire to receive care on the same day, the possibility of having laboratory tests and other investigations which are not provided in PHCCs, the lack of trust in primary care services, and convenience for patients who prefer medical treatment that is available 24/7 (Jerius et al., 2010; Qureshi, 2010; Rehmani and Norain, 2007). However, the existing research on non-urgent presentations across the Middle East is very limited and the reasons are not clear. Hence, further research is needed to examine the reasons for non-urgent visits to develop evidence-based solutions.

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With increasing ED utilisation, formalised triage systems have been developed to identify and prioritise those patients presenting with life-threatening conditions, as well as providing timely care to those with non-urgent problems. Qureshi's (2010) review of triage systems in the Middle East found that research is extremely limited in this area and argues for the adoption and evaluation of nurse-led triage systems in Saudi Arabia and across the region. Although practice is inconsistent (Al-Johani, 2009), most of the triage systems used in Saudi Arabia are adaptations of either the Canadian Triage and Acuity Scale (CTAS; Beveridge, 1998), Manchester Triage System (MTS; Mackway-Jones, 1997) or Australasian Triage Scale (ATS; Australasian College for Emergency Medicine, 2002). Only one Saudi study has evaluated the effectiveness of a formal ED triage system (Elkum, 2011) and there is a clear need for research to evaluate the effectiveness of ED triage systems in the Middle East generally and in Saudi Arabia specifically. No published studies could be found that have examined patient perceptions of urgency or satisfaction with nurse-led triage systems in the Middle East.

In summary, there are major gaps in the Middle Eastern literature on ED overcrowding and triage systems. Studies are lacking that examine the factors influencing non-urgent ED use and no studies have surveyed patients to examine the reasons that influence their decision to attend the ED with non-urgent problems. Moreover, almost no data exist on patient perceptions of urgency or use of triage systems. The purpose of this research was to examine the reasons for non-urgent visits to a Saudi ED and factors associated with patient perceptions of urgency.

1.1. Research questions

1 What factors influence Saudi patients to present to the ED with non-urgent problems as assessed by the Canadian Triage and Acuity Scale (CTAS) categories IV and V?
2 How do Saudi patients presenting to the ED with non-urgent problems perceive the urgency of their condition and how does this compare to ED nurse ratings?

2. Methods

2.1. Setting and sample

This descriptive-exploratory study was conducted at a large tertiary referral government hospital ED in Riyadh, Saudi Arabia. The hospital is run by the Ministry of the Interior to provide healthcare services for its employees and their families, as well as emergency care for all residents (Almalki et al., 2011). This includes all employees who work for national security, naturalisation, immigration and customs departments in Saudi Arabia. It is a 508-bed hospital, including a 35-bed ED, which incorporates paediatrics, obstetrics and gynaecology sections. In 2011, the number of patients who visited the ED totalled 116,011 representing 15.5% of total patients visiting the hospital.

The sample for this study included consecutively presenting non-urgent adult male and female patients, triaged as CTAS level IV or V. The data collection period included 25 days in March 2013. Each day we recruited patients during one of three different time periods, in random order: (1) 08:00–16:00 hours, (2) 16:01–23:00 hours, (3) 23:01–07:59 hours. During the month of data collection 14,109 adult and paediatric patients presented to the ED. Of these, 5453 (38.6%) were non-urgent adults. Approximately half were women (53.7%). The final sample included 350 adult patients who presented to the ED with non-urgent problems. Six potential participants did not consent to the survey giving a 98.3% response rate overall.

2.2. Measures

As there were no existing instruments available, a 25-item survey was developed based on previous studies (Durand et al., 2011; Field and Lantz, 2006) and translated to Arabic. We sought feedback about the face and content validity of items from senior ED staff and pre-tested the survey with 10 non-urgent ED patients to determine clarity and sensitivity to the target population. All items were found to be relevant and only minor modifications were necessary such as adding a neutral option to Likert response scales.

2.2.1. Demographic characteristics

Data were obtained from the patient's ED admission record including age, gender, marital status, place of residence, highest level of education and employment status. We recorded the day, time and mode of arrival to the ED and the patient's reason for seeking healthcare.

2.2.2. Usual healthcare practices

Six items assessed usual healthcare practices: (1) Do you have a regular primary healthcare provider? (2) Where do you usually go for healthcare? (3) How many times did you go to the primary healthcare clinic during the past year? (4) How satisfied were you with the care provided by your local PHCC? (5) How many times did you go to the ED during the past year? (6) Did you contact a primary care provider for this problem before coming to the ED?

2.2.3. Reasons for attending the ED

We asked patients to report: (1) Why did you choose to attend the ED for your problem today? (2) Did you come to the ED for any specific treatments or tests? (3) How much time has elapsed since the beginning of the complaint that you have today and the decision to go to the ED? (4) Who was involved in the decision to attend the ED? Based on a review of the literature we included six possible reasons for attending the ED and an open ended question for patients to identify any other reasons not listed.

2.2.4. Perceptions of urgency

Patients were asked to rate the urgency of their condition on a 10-point numerical rating scale from 1 (*not at all urgent*) to 10 (*extremely urgent*). In addition we sought each patient's self-reported level of urgency according to the CTAS. Using an A4-sized poster of CTAS levels with simple descriptions (Table 1), patients were asked to identify the triage category that best represented their complaint. Finally, we included a 5-point Likert scale (1 = *very dissatisfied* to 5 = *very satisfied*) assessing satisfaction with the triage system used in the ED.

2.3. Data collection

As per the ED protocol, arriving patients were assessed by the triage nurse and assigned to a CTAS acuity level. After being assessed as non-urgent the triage nurse provided potential participants with a study information sheet. After allowing 15–20 minutes for patients to read and absorb the participant information, the patient was approached by the researcher who explained the purpose of the study. On obtaining verbal consent, a 10 minute face-to-face survey was administered in a private area used for patient assessment to ensure participant privacy and confidentiality. No identifiable patient information was collected. All study procedures were approved by the University's Human Research Ethics Committee.