

## Characterization of adolescents and reason for the visit when attending the pediatric emergency department of the General Hospital “Dr. Manuel Gea González”

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### Abstract

**Rationale:** Emergency health care demanded by adolescents has increased due to a variety of specific disorders. **Aims:** (1) Describe the frequency of emergency services utilization by adolescents; (2) Identify the reason for the visit; (3) Describe psychosocial and health features of patients; and (4) Describe information related to informed assent. **Material and Methods:** Observational, descriptive, and prospective study carried out in patients aged 12 to 18 years, treated in the emergency department of General Hospital “Dr. Manuel Gea González”, between 2008 and 2009. Survey data as well as the HEADSS sociodemographic questionnaire was used. **Results:** A total of 170 patients were included in the study. The average age was 14.1 years; 55% were female. The main reasons for consultation were trauma (32.9%), followed by non-surgical gastrointestinal pathologies (12.4%), acute abdomen (11.8%), psychiatric emergencies (10.6%), neurological (8.8%), infectious or gynecologic obstetrical (both 8.2%). In 81% of cases, relatives (mostly parents) were the ones who decided to take the patient to the emergency room. It is noteworthy that in 64% of cases the patients had previously gone to the emergency room. Of the patients, 72.4% reported not having regular medical care and the remaining reported that medical care was referred to once or twice a year. **Conclusions:** Among patients seeking emergency care, a significant proportion are teenagers. The causes are varied, with care ranging from posttraumatic aspects to psycho-behavioral disorders. There is minimal culture in this age group to agree about their own treatment through informed consent. (Gac Med Mex. 2016;152:25-9)

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### Background

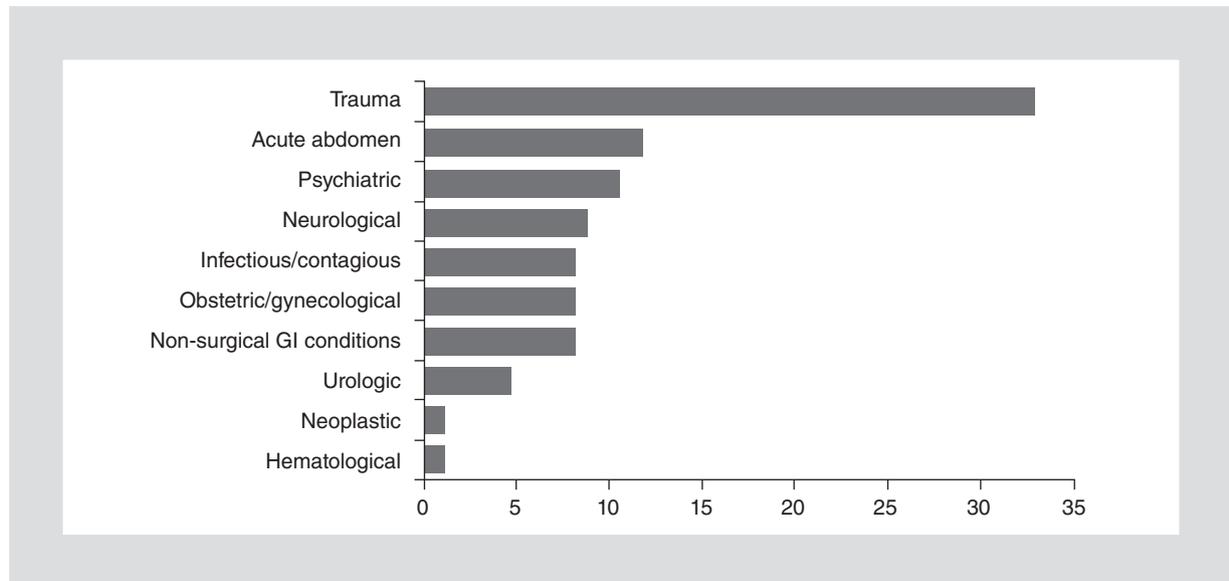
Pediatric Emergency Services are increasingly required for the care of patients for several causes, but perhaps the most common reason is because they represent the option that patients of the pediatric population have when affected by acute, not necessarily

urgent, medical conditions and, therefore, the increase in the demand for services is often bigger than the demographic growth. Most visits to the Pediatric Emergency Department (ED) are comprised by nonurgent medical conditions that saturate the ED; some studies report that there are approximately 2-3 cases of nonurgent medical conditions for each true emergency<sup>1-3</sup>.

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**Figure 1.** Main causes of emergency in adolescents (adapted from *Publicación Adolescentes en Urgencias*. Hospital Gea).

Most part of the demand for emergency care in the pediatric age is due to trivial conditions that could have been taken care of by the primary care physician at the patient's health center. However, it has been suggested that these patients attend hospital EDs due to their accessibility, out of distrust of primary care services and due to a lack of healthcare education<sup>4-7</sup>.

In spite of attempts to reduce nonurgent visits to the Pediatric ED with the use of the triage system and educational programs, the demand of services is on the rise. Another reason for the increase on requests for attention at the Pediatric ED is the higher number of adolescent patients that require this services; although this age is regarded as a stage of "good health" where medical care would hardly be required, adolescents have characteristics that predispose them to suffer accidents and traumas, as well as to emotional immaturity, which often causes a high percentage of psychic disturbances and unspecified signs that motivate seeking medical help<sup>8</sup>. Adolescence is a period of intense physical and psychosocial changes. All this implies that patients in this age group have particular features, different from those of childhood and adult age. In adolescence is when physical injuries are more frequently sustained; this age is also regarded as a stage when behaviors appear that are different from those at other ages and, therefore, their study must be focused differently than in other stages of life<sup>7-8</sup>. Given there is sparse information existing on the frequency and characteristics of adolescents that use hospital EDs in our environment, this study was carried out with

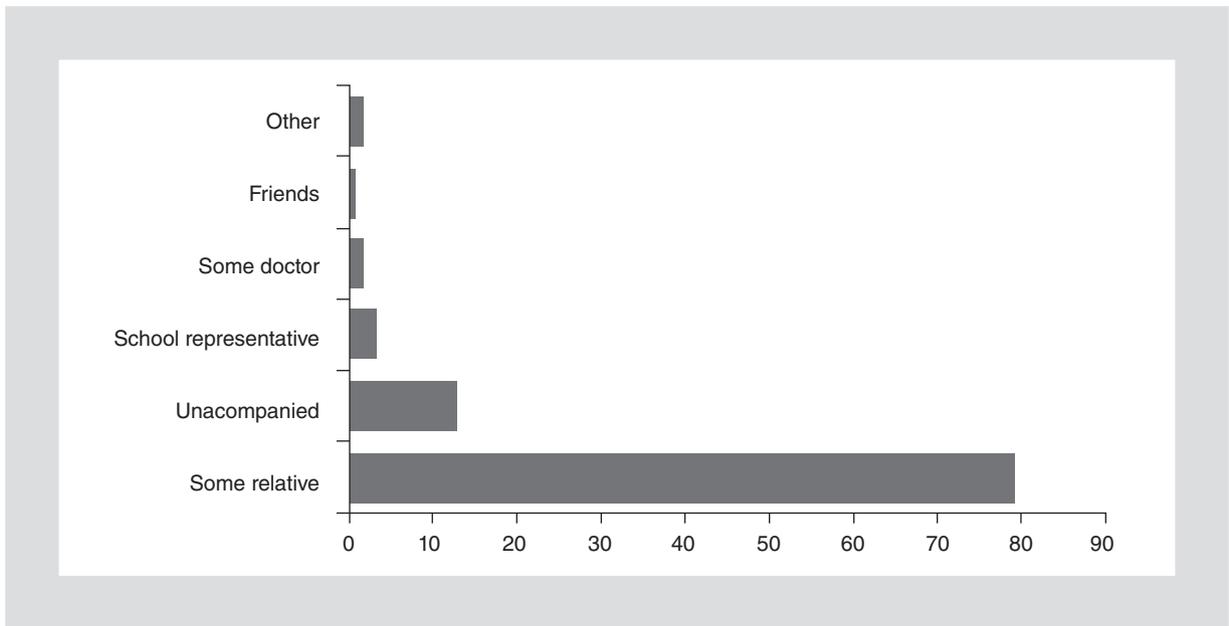
the fundamental purpose of identifying the main causes why adolescents seek help at the ED, in addition to knowing their health characteristics and their willingness to grant an informed consent.

## Material and methods

This was a descriptive, observational, prospective, cross-sectional study, carried out with approval of the Research and Research Ethics Committees of the hospital, with the number 21-67-2008. One-hundred and seventy adolescents, from 12 to 18 years of age, who attended the Pediatric ED of the General Hospital *Dr. Manuel Gea González* between August 1, 2008, and May 31, 2009, asking for medical care and who accepted to participate in the study by signing an informed consent form, were randomly selected. All patients were initially assessed in order to establish the type of emergency and whether they were or not under the influence of alcohol or drugs. The researchers or duly standardized duty doctors applied the sociodemographic questionnaire and the HEADSS. From the statistical point of view, average calculation and standard deviation was performed for numeric variables with Gaussian distribution and percentages for categorical variables, using the STATA program (version 13.0 for Mac).

## Results

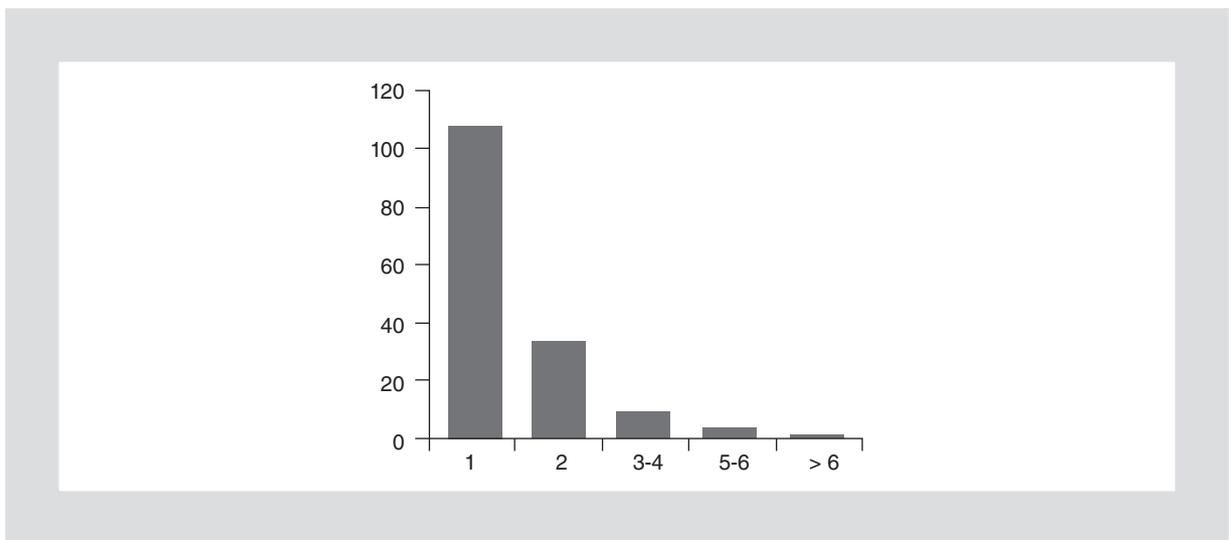
A total of 170 patients with an age average of 14.1 years were included in the study. Out of them, 55% were of



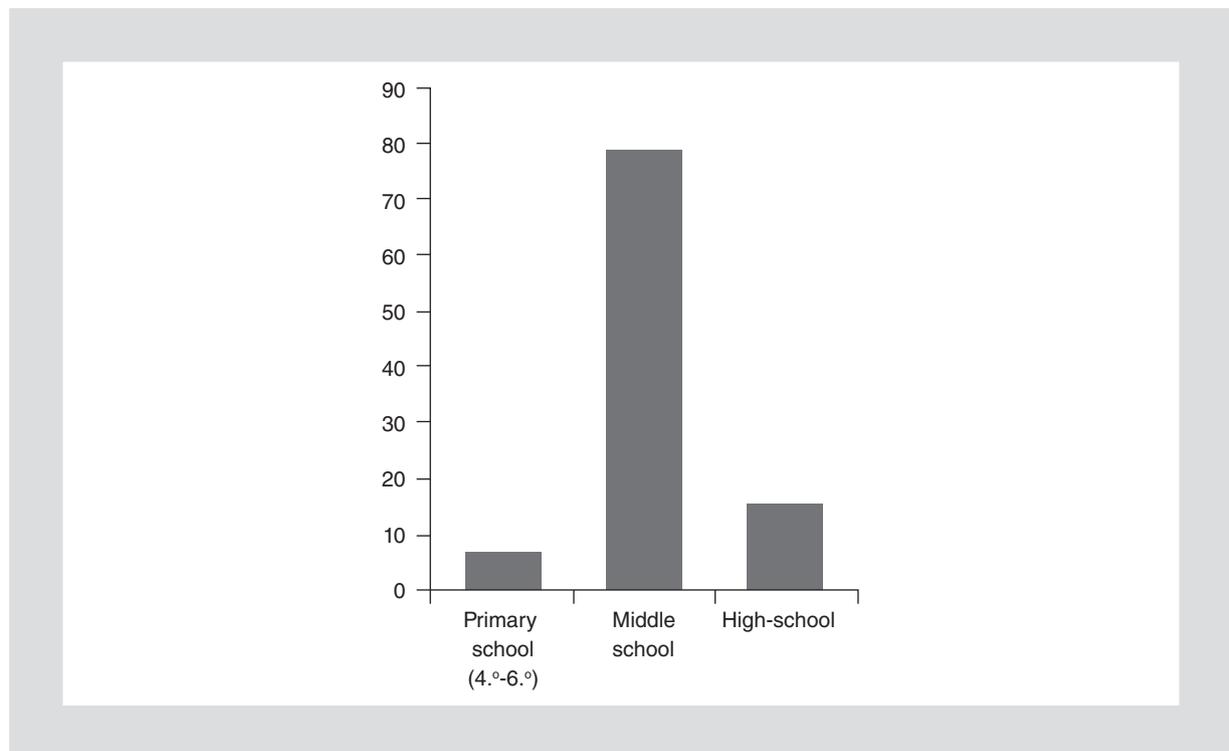
**Figure 2.** Type of accompanying person (adapted from Publicación Adolescentes en Urgencias. Hospital GEA).

the female sex. No age differences were observed between males and females (14.6 vs. 15.1 years;  $p > 0.05$ ). The main complaint was trauma (32.9%), followed by non-surgical gastrointestinal (GI) conditions (12.4%), acute abdomen (11.8%) and psychiatric (10.6%), neurological (8.8%), infectious/contagious (8.2%) or obstetric/gynecological emergencies (8.2%) (Fig.1). In 81% of the cases, relatives (mainly the parents) were who decided to bring the patient to the ED (Fig. 2). Notably, in 64% of the cases, the patients had previously attended the ED (Fig. 3). A proportion of 72.4%

of the patients referred not having regular medical care, and the rest, which referred having medical care, reported attending once or twice-yearly. Of the patients who referred previous medical care, 82.2% had attended a physician within the 6 months prior to their arrival to the Pediatrics ED, mainly to the nearest healthcare center to their homes (25.9%), to the ED of the hospital originating the present investigation (20.6%), to a private practitioner (18.8%) or to physicians of practices associated with drugstores (14.7%). When the analysis of the family dynamics was made, only 10% of adolescents



**Figure 3.** Prior visits to the ED (adapted from Publicación Adolescentes en Urgencias. Hospital GEA).



**Figure 4.** Level of education (adapted from *Publicación Adolescentes en Urgencias*. Hospital GEA).

were identified as living outside the family setting, 67.6% lived with both parents, 19.4% only with the mother and 3.5% lived only with the father. A proportion of 80.6% referred having a friendly relationship with their parents, 13.5% reported it as being fair and 5.9% as being bad. Of these adolescents, 81.2% stated not having any underlying disease; 52% were concerned about their nutrition, and 65% about their weight and body image. With regard to education, 91.8% reported going to school (Fig. 4). 88.2% of the adolescents referred having friends with whom they spent time and 18.2% referred being members of a gang. Active smoking was reported by 21.2%; alcoholic beverages consumption by 25.9% and consumption of any drug was referred by 8.8%; of the latter percentage (8.8%), 20% were children between 10 and 12 years of age and 80% between 16 and 19 years. A proportion of 56.7% of the cases referred having felt depressed sometime; among these, the largest group was among the 16-19-year-old patients (66.6%). Seventy percent referred having wanted to harm themselves sometime. Up to 82.9% discussed their problems with their families; 2.4% with friends and 14.7% referred not having anybody to discuss them with. In this adolescent sample, 79.4% felt safe at school and 92.4% at home; 18.2% referred having

had at least one sexual experience; of them, 5.2% were between 10 and 12 years old, 19.3% between 13 and 15 and 50% between 16 and 19. Only 23.5% reported having used any contraceptive method. The reported pregnancy rate was 4.7%.

With regard to the attainment of the signed informed consent to participate in the survey and expressing an opinion on it, 98.2% signed the document. Among those who signed, 62.4% did not add any comment, 14.1% mentioned it was a bore doing it, 12.9% that they didn't understand it and only 8.8% signed it claiming to understand it correctly.

## Discussion and conclusions

The importance of the group of adolescents within the national context lies not only on their numerical importance (in the year 2011, this population included 20 million), but mainly on the challenge that warranting satisfaction of their needs and demands, as well as full development of their particular capacities and potentials, represents for society. According to the Panamerican Health Organization, in 1988, the Ibero-American Convention on Youth Rights, based upon the International Convention on the Rights of the Child, the fact was confirmed that among youths of the region, serious

shortcomings and omissions occurred, which affected their comprehensive development by denying or limiting rights such as education, work, health, environment, participation in social and political life, decision making, effective judicial protection, information, family, housing, sport, recreation and culture in general. Considering that there should be an advance towards explicit recognition of young people's rights, as well as in the promotion of bigger and better opportunities for youths in order to achieve success by inspiring healthy behaviors that persist for the entire life, early intervention should start at the pre-adolescence period rather than waiting until later, when behaviors that put health at risk may be far too rooted. The phenomenon of inadequate demand of emergency care by children and adolescents, reported mainly in the North American and Spanish health systems, which is explained by a lack of trust on primary care services, does not occur in our country, where they only attend a hospital when the family situation considers that what's going on is serious and requires immediate attention. It is imperative to conduct a larger number of studies that more objectively investigate this social and medical fact, in order to implement educational measures for the prevention of addiction-associated or non-associated accidents and to generally improve education on preventive health at the Primary Care sector.

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