Erectile dysfunction prevalence in a young population sample in Mexico


ABSTRACT

Background: Erectile dysfunction (ED) is attributed to physiologic and emotional factors. A prevalence of 30% to 35% has been described in the young adult group.

Aims: The aim of our study was to determine the prevalence of ED in a population sample of Mexican men between the ages of 18 and 40 years.

Methods: An observational, cross-sectional, and descriptive study was conducted. The “Survey of Male Urologic Health” and the 5-item International Index of Erectile Function (IIEF-5) were applied. A sample of men between the ages of 18 and 40 years that had been sexually active within the last month was selected. A descriptive analysis with measures of central tendency and dispersion was carried out.

Results: A total of 160 cases were included in the study. The mean age was 25.59 ± 5.45 years. ED was present in 33.8% and the grades were: mild (17.9%), moderately mild (7.9%), moderate (5.8%), and severe (1.9%). The mean score in the healthy group was 24.38 ± 0.94 vs 15.41 ± 4.81 in the group with dysfunction. A total of 32.5% of the men said they were circumcised; 21% reported that they

RESUMEN

Introducción: La disfunción eréctil (DE) se atribuye a factores fisiológicos y emocionales. En el grupo de adultos jóvenes se ha descrito una prevalencia de 30% a 35%.

Objetivo: El objetivo de nuestro estudio es conocer la prevalencia de DE en una muestra de población entre 18 a 40 años en México.

Material y métodos: Estudio observacional, transversal y descriptivo. Se aplicó el cuestionario titulado “Encuesta de Salud Urológica Masculina” junto con el “Índice Internacional de Función Eréctil 5 ítems” (IIEF-5). Se seleccionó una muestra entre 18 y 40 años con actividad sexual en último mes. Se hizo un análisis descriptivo con medidas de tendencia central y dispersión.

Resultados: Se incluyeron 160 casos con una edad promedio de 25.59 ± 5.45 años. El 33.8% presentó DE y los grados fueron: leve (17.9%), leve moderada (7.9%), moderada (5.8%) y severa (1.9%). El puntaje promedio en el grupo sano fue 24.38 ± 0.94 contra 15.41 ± 4.81 en el grupo de disfunción. Un 32.5% reportó estar circuncidado. El 21% reportó nunca utilizar preservativo y
never used condoms, and 14.5% stated that they were unsatisfied with the size/thickness of their penis. 

**Conclusions:** ED prevalence in a Mexican population (33.8%) concurred with that reported in the international medical literature.

**Keywords:** Sexual dysfunction, erectile dysfunction, prevalence, young adult, IIEF-5, Mexico.

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### INTRODUCTION

The consensus of the National Institutes of Health (NIH) defines erectile dysfunction (ED) as the persistent inability to achieve or maintain penile erection sufficient for satisfactory sexual performance for a period greater or equal to six months.1 An estimated 140 million men around the world2 and 30 million men in the United States suffer from ED3, a pathology that is directly and proportionately related to age. ED is a multifactorial disease whose causes are vascular, neurogenic, hormonal, anatomic, psychological, and emotional.4 It greatly affects quality of life and is an important reason for medical consultation in urology.5 Certain risk factors for ED have been recognized, such as diabetes mellitus, high blood pressure, obesity, smoking, dyslipidemia, depression, and a sedentary lifestyle.6

ED in young adults has currently gained importance but there are still few studies on the subject. A 30% to 35% prevalence in ages from 18 to 40 years has been described in the international literature.6,7 Two studies conducted in Mexico in 2001 reported a prevalence of 9.7 % and 16% in this age group.8,9

Because there is little information available on the subject of ED in young adults, the aim of the present study was to determine ED prevalence in a sample of the Mexican population between the ages of 18 and 40 years.

### METHODS

An observational, cross-sectional, and descriptive study was conducted. The “Male Urologic Health” survey and the 5-item International Index of Erectile Function (IIEF-5) were applied to male volunteers between the ages of 18 and 40 years. The survey was applied in-person or online filling out a form available on a website and all information was confidential. Demographic and clinical variables were analyzed and they included personal data, lifestyle, smoking, diseases, sexual orientation, information about sexual intercourse, condom use, and questions corresponding to the IIEF-5.

A patient is considered to be healthy with an IIEF-5 score above 22 points and is considered to present with ED with a score under 22 points, according to previously validated criteria.10 The ED group was classified into degrees as follows: mild ED (17-21 points), moderately mild ED (12-16 points), moderate ED (8-11 points), and severe ED (5-7 points).

A descriptive analysis was carried out with measures of central tendency and dispersion and the SPSS® 17.0 statistical package was used.

### RESULTS

A total of 373 surveys were obtained and 160 were included in the study because they had complete information, the subjects had been sexually active during the last month, and they were between the ages of 18 and 40 years. The mean age was 25.59 ± 5.45 years. A total of 33.8% had some degree of ED according to the IIEF-5. The mean score in the healthy group was 24.38 ± 0.94 vs 15.41 ± 4.81 in the ED group. The degrees of ED and their percentage distribution are shown in Figure 1.

In regard to civil status, 75.6% were single, 20% were married, and 4.4% were in free union relationships. A total of 86.9% had an undergraduate and/or postgraduate educational level. A total of 32.5% said they were circumcised.

Other variables in the questionnaire provided the information that 83.2% of the subjects began their sexual
activity before 20 years of age and the number of sexual partners they had been with was 8.98 ± 14.63. A total of 83% were heterosexual, 11.9% were homosexual, and 5% were bisexual. A total of 21% said they never used condoms and 14.5% said they were unsatisfied with the size/thickness of their penis.

**DISCUSSION**

When reviewing the international literature and that produced in Mexico, there were studies with similar results and others that reported a lower prevalence of ED. Table 1 shows the differences in prevalence found in Mexico and Table 2 shows those in the international studies. The study in the Mexican literature carried out by Barroso-Aguirre et al. on a sample of 1,800 patients with a mean age of 27.9 ± 6.6 years reported a prevalence of 9.7% in young adults; ED was mild in 7.9%, moderate in 1.2%, and severe in 0.6%. In 2003, Hernández-Moreno et al. reported a prevalence of 16%. We obtained a higher total ED prevalence but it coincided with the mild or mild-to-moderate majority in other studies. In our case series the ED degrees were: mild (17.9%), moderately mild (7.9%), moderate (5.8%), and severe (1.9%).

In a study conducted in Israel by Heruti et al. on a population of 8,536 patients with a mean age of 34.8 ± 7.1 years, they reported that approximately one out of every three men presented with ED (26.9%) and again the majority of cases were mild (19%). A total of 7% were moderate and 1% were severe. Nevertheless, it should be pointed out that the age range was broader (25 to 50 years) and 22.1% of the patients under 40 years of age presented with mild ED.11

In their case series from Austria with 2,869 patients, Ponholzer et al. used the IIEF-5 and reported that 25.5% of the 20 to 30-year-old age group presented with ED, and that figure was 28.8% for the 41 to 50-year-old age group.12 This prevalence was similar to the range results in our study.

In a study from Holland by Rynja et al. to evaluate the effectiveness of the IIEF-5 in detecting ED in young adults, it was found that when the interviewees had not engaged in sexual activity within the last month, there could be a spurious increase in ED prevalence. Their study on 151 patients with a mean age of 21.8 years reported a prevalence of 33.6%.7,13 In our analysis we only included interviewees that had engaged in sexual activity within the last month and that produced a prevalence of 33.8% in a case series of 160 patients.

A lower ED prevalence was identified in a retrospective study by Bayraktar et al. that analyzed self-reported ED in urologic patients in Turkey. They reported a 1.9% prevalence in the interest group (n=5,438). The author concluded that the prevalence was low due to bias because the patients that said they had ED were different from those populations in which ED was intentionally looked for.2

It is possible that the variation in ED prevalence can be explained by different causes: sociocultural factors, lifestyle, information access, researcher prejudice, sample selection, statistical methods, and more efficient health services than ours; however this is controversial.14,15 A proposal that could improve ED prevalence in Mexico is to have an impact on sociocultural factors and to modify lifestyles, given that a sedentary lifestyle causes obesity, which is closely related to ED.

**Table 1. ED prevalence in Mexico.**

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Country</th>
<th>n (total)</th>
<th>Age</th>
<th>Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barroso-Aguirre</td>
<td>2001</td>
<td>Mexico</td>
<td>1,800</td>
<td>18-40</td>
<td>9.7</td>
</tr>
<tr>
<td>Hernández-Moreno</td>
<td>2003</td>
<td>Mexico</td>
<td>452</td>
<td>18-41</td>
<td>16</td>
</tr>
<tr>
<td>INCNMSZ series</td>
<td>2011</td>
<td>Mexico</td>
<td>373</td>
<td>18-40</td>
<td>33.8</td>
</tr>
</tbody>
</table>

INCMNNSZ: Instituto Nacional de Ciencias Médicas y Nutrición “Salvador Zubirán”. 

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**Figure 1.** Percentage distribution according to ED degree.
A possible weakness in our study was that we did not analyze the clinical implication presented by the different ED degrees and the impact on quality of life. In the present study the search for risk factors that could be associated with a greater ED prevalence in the young adult population is pending.

**CONCLUSIONS**

In our sample, ED prevalence was 33.8% and this figure included in its majority single, heterosexual patients with undergraduate/postgraduate educational levels. The results of this sample concur with those reported in the international literature.

**CONFLICT OF INTEREST**

The authors declare that there is no conflict of interest.

**FINANCIAL DISCLOSURE**

There was no financial support in relation to this article.

**REFERENCES**

