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GPS' VIEW ON BARRIERS TO PATIENTS WITH ERECTILE DYSFUNCTION: A BULGARIAN CROSS-SECTIONAL STUDY

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Abstract

Epidemiological studies show that erectile dysfunction (ED) is widespread worldwide and its prevalence tends to increase. ED influences quality of life, preceding or accompanying different diseases and it is a proven risk factor for cardiovascular disease. Different factors were found impeding patients to discuss the ED problem during the consultations.

The aim of the study is to identify GPs' view on barriers to patients with ED.

A cross-sectional study, using questionnaire, was conducted among randomly selected GPs. For the statistical analysis descriptive statistics, chi-squared test, Fisher's exact test and SPSS 17.0 were used.

The sample is nationally representative. Only 3% of all participants believe that patients share ED-related problems easily. The following most common barriers for the patients were identified by GPs: *Inappropriate conditions – lack of privacy and lack of time in the doctor's office* (62.8%); *embarrassment* (60.2%), and *the patient expects the erectile problem to be resolved spontaneously* (55.0%). Physicians' personal characteristics age, gender and education affect their perception for the role of the different factors.

Embarrassment remains among the leading barriers for the consultation about ED. At the same time there is a national specific barrier, connected with the organization of primary health care. Another important direction is

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education. Knowledge of the barriers is a prerequisite for their overcoming. Further researches are needed.

Key words: erectile dysfunction, general practitioners, primary health-care, barriers

Introduction. Epidemiological studies show that erectile dysfunction (ED) is widespread worldwide and its prevalence tends to increase [1]. The Asian men's attitudes to life events and sexuality (MALES)study has found that men with ED suffer from more comorbidities and have reduced quality of life [2]. ED is preceding or accompanying cardiovascular diseases (CVD) [2–5], diabetes mellitus [2–7], dyslipidaemia [2–4], depression [2,4], benign prostatic hyperplasia [4,8], etc. Whereas as a proven risk factor for CVD [9], ED is essential for the early diagnosis and prevention [5,10].

Despite the facts, a relatively small number of ED patients seek treatment [11]. Different factors were found impeding patients to discuss the ED problem during the consultations, rendering achievements of medical science in this area inapplicable [11–13].

The aim of the study is to identify GPs' view on barriers to patients with ED.

Materials and methods. Self-administered paper-based version of the questionnaire was distributed among 300 randomly selected family doctors. Two hundred and thirty-seven (79%) were returned, 6 (2.5%) were partially completed and excluded.

Study questionnaire. Self-designed questionnaire was developed based on literature review, a qualitative study [13] and discussions among authors.

The questionnaire comprised closed-ended questions about socio-demographic characteristics and multiple-choice questions on GP's view about the barriers for addressing sexual issues in general practice.

A pilot study among 34 GPs was conducted and the results were used to create the final version of the questionnaire [13].

Statistical analysis. Categorical variables were expressed as frequencies and continuous data as mean ±SD. Comparisons between different groups were performed with Fisher's exact test or χ^2 method, depending on degree of freedom. Significance was set at $P < 0.05$. Statistical analyses were performed using SPSS 17.0 package (SPSS Inc., Chicago, IL, USA).

Results. The sample is nationally representative covering 5.2% of all 4407 GPs in Bulgaria [14]. The average age was 50.97±9.606 with average years of experience 24.89±9.034. Participants' characteristics are presented in Table 1.

It is worth noting the small number of doctors 7 (3%), who answered the patient shares ED-related problems easily.

The barriers impeding the patients to discuss ED-related problems were split into three categories: personal attitudes, health attitudes and factors of the health-care system. They are ranged and presented in Table 2.

Table 1

Socio-demographic characteristics of the GPs ($n = 231$)

Age	N (%)
≤ 44	49 (21.2%)
45–60	144 (62.3%)
> 60	38 (16.5%)
Gender	
Male	77 (33.3 %)
Female	154 (66.7 %)
Specialty*	
General medicine	72 (31.2%)
Internal medicine	42 (18.2%)
Pediatrics	23 (10.0%)
GP resident	123 (53.2%)
Practice type	
Group	49 (21.2%)
Individual	182 (78.8%)
Owners of practice	211(91.3%)
Second doctor with a contract	20 (8.7%)
Practice location according to city inhabitants	
$> 200\ 000$	90 (39.0%)
50 000–200 000	37 (16.0%)
20 000–50 000	28 (12.1%)
5000–20 000	38 (16.5%)
< 5000	38 (16.5%)
Educational modules on ED**	
None	94 (40.7%)
One module	106 (45.9%)
Two or more modules	31 (13.4%)

*More than one answer is possible, as some of the doctors with a previous specialty in Internal Medicine or Paediatrics have specialized in General Medicine in connection with health care reform.

**Number of modules (trainings) of completed educations – as a student, as a resident, in Continuing Medical Education (CME)

It was found that *Working conditions*, personal *Embarrassment* and the perception that it is a *Taboo topic* are among the answers, unaffected by doctors' age, gender, qualification, practice location or their employment status in the practice $P > 0.05$.

Table 2

Barriers to the patient according to GP responders ($n = 231$)

Personal attitudes	*N*	%
Embarrassment	139	60.2
Beliefs and cultural factors	113	48.9
Considers the issue too personal	108	46.8
Concerns over possible impact on his public image	91	39.4
Physician-patient gender concordance	87	37.7
It is a taboo topic	33	13.9
The young age of the physician	21	9.1
Close professional relationship with the GP	18	7.8
Giving up on sex	9	3.9
Health attitudes		
The patient expects the erectile problem to be resolved spontaneously	127	55.0
Self-treatment attempts	101	43.7
The patient does not perceive ED as a symptom of disease	89	38.5
Denial of the problem ("I could not possibly have an ED")	83	35.9
Ignorance and poor health literacy	82	35.5
Insufficient information	65	28.1
Factors of the healthcare system		
Working conditions – lack of time in doctor's office	145	62.8
Presence of the nurse or other medical staff in the office	109	47.2
The patient is prejudiced, which makes him go for a medical specialist	105	45.5
Concerns "it might become publicly known"	81	35.1
Inadequate doctor-patient relationship and/or lack of trust in GP	20	8.7

Educational effects. The increase in the number of completed trainings is raising the portion of respondents who indicated *Beliefs and cultural factors* as barriers – $\chi^2 = 7.218$; df $= 2$; $P = 0.027$.

The patient expects the erectile problem to be resolved spontaneously as a barrier were indicated significantly more often among more trained physicians 80.6% ($n = 25$) compared to 50.0% ($n = 47$) without any modules $\chi^2 = 9.601$; df $= 2$; $P = 0.008$.

Participation in educational modules decrease the perception about the *Concerns "it might become publicly known"*: none 46 (48.9%); one module 33 (31.1%); two or more 12 (38.7%) $\chi^2 = 6.622$; df $= 2$; $P = 0.036$.

Physician gender influence. None of the male respondents have indicated *Giving up on sex* as a barrier to consulting for ED, while 5.8% ($n = 9$) female physicians have given this answer; $P = 0.031$.

As twice as many of the female physicians, 45.5% ($n = 70$), have checked the *Doctor-patient gender concordance* as a possible barrier for sharing, compared to 22.1% ($n = 17$) men, $P = 0.001$.

There is a tendency the *Concern it might become publicly known* to be checked more often by the male physicians 44.2% ($n = 34$), compared to the female physicians 30.5% ($n = 47$), which does not reach statistical significance; $P = 0.057$.

The age group of doctors up to 44 years statistically significantly more frequently (20.4%; $n = 10$) checked *The young age of the physician* as a barrier, compared to the other age groups (4.8%; $n = 11$) $P = 0.004$.

General medicine specialists consider the *Presence of the nurse or other medical staff in the office* as a hindrance in 56.9% ($n = 41$), while residents in 42.8% ($n = 53$) $P = 0.048$.

Discussion. The received results are comparable with obtained in the similar researches [2,11,15].

The *Embarrassment* is the common barrier in surveys regardless how important according to the respondents it was [11,12,15]. Our findings support the results of Shabsigh et al. [11], yet the barrier they rank first is the perception that *ED is a natural part of ageing*, followed by those frequently checked in our study – *the expectation the problem to resolve spontaneously.* Although the authors of the first survey in the UK on how general practitioners perceive the management of the ED problem use a different approach to classification, the various barriers match in content [12]. Of the factors of the healthcare system our study adds *the inappropriate conditions in doctor's office* to *lack of time* in their study [12]. Similar results were obtained by the SEXOS study, conducted in Portugal [16].

From the point of view of possible intervention and improvement, factors influencing barriers could be split as non-modifiable factors (gender, age) and modifiable factors (health attitudes, education, and factors of the healthcare system).

Gender and age differences between doctor and patient act as barriers, which is consistent with the results from previous studies [11,12,17,18]. In our study the proportion of barriers *gender* and *age differences between patient and doctor*, *discomfort of patient* and *the topic being perceived as "sensitive"* is higher, compared to UK [12]. Male doctors never "declare" "*giving up on sex*", while female doctor check the *doctor-patient gender concordance* as a possible barrier to sharing. This is consistent with the finding of the other study that female doctors report more problems in dealing with SD [19].

The young age of the physician is indicated as a barrier predominantly by doctor aged up to 44 years.

Poor health literacy of the patient also acts as barrier. On the other hand, it could be seen that around 1/3 of all physicians have not received any education at all on ED and the associated diseases. This applies equally for the education of students, residents and post-graduates. The increase of knowledge on ED and the

number of received educations has significant effects – reduces the perception that sharing the ED problem would damage patient's image; results in higher ranking of personal upbringing, cultural factors and the significance of advice, given by friends and family in resolving the ED problem. It could be said that the effect is "dose-dependent" on the number of received trainings.

In our study the presence of a third person in the office acts as a barrier to the patient, because that third person is usually the nurse (on doctor's side). For the colleagues in the USA [20] this is a barrier to the doctor, probably because that third person is a patient's relative (accompanying person on patient's side).

Strengths and limitations. Our response rate (77%) is among the highest among similar studies. One possible explanation is the interest shown by the colleagues and the relevance of the topic. One asset of this study is its representativeness – it covers more than 5% of all doctors in the country.

Almost all family doctors in Bulgaria are former district doctors. Until the year 2000 this profession was dominated by females and this trend persists to this day, which explains that female family doctors considerably prevail over the male doctors.

A limitation is that it is the perception of the doctors and not of the patients themselves. On the other hand, this provides another viewpoint and could, in our opinion, expand our understanding of the problem.

Conclusion. Embarrassment remains among the leading barriers for the consultation about ED. At the same time a national specific barrier is connected with the organization of the primary health care. Another important direction is the education. Knowledge of the barriers is a prerequisite for their overcoming. Further researches are needed.

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