Pilot Testing of the Universal Questionnaire in the Conditions of the Bukhara Regional Multidisciplinary Center (BOMC)

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ABSTRACT: To solve this problem, it is more informative to conduct a targeted survey of the population, rather than an analysis of data on its use of medical care. This is due to the fact that the appeal ability depends on many factors, such as the development of infrastructure and medical care, its availability, general and medical culture, habits, customs and mentality of the population that affect its medical activity.

Keywords: urological diseases, optimal methods, nosologies.

Introduction

Urological diseases have a significant impact on the health of society [2,4]. Determining the true prevalence of urological diseases requires an assessment of the so-called. latent urological morbidity ("urological iceberg") [3].

In the light of the implementation of the tasks set by the State Program for Reforming the Healthcare System [1], the development of simple and accessible methods of diagnosis and optimal methods of conservative treatment of urological patients and, what is important, their introduction into the conditions of primary health care, training general practitioners in the ability to recognize persons with urological diseases, to identify those who need treatment.(5-7)

Purpose of the study. To assess the diagnostic capabilities of the universal questionnaire in identifying the most common urological diseases in primary health care.

Materials and methods.

Pilot testing of the developed universal questionnaire was carried out at the BOMC. The patients were admitted according to their request for examination and treatment for various nosologies. All patients were seen by general practitioners. A total of 77 patients were examined (the average age was 39.6 ± 1.21 years). The research was carried out in 2 stages: using the traditional and improved questionnaire.

Patients were selected based on inclusion and exclusion criteria and willingness to participate in the study.

The inclusion criteria for the study were persons of both sexes aged 1 year and older. The exclusion criteria are alcohol or drug abuse within the last 6 months (alcoholism, substance abuse).

The patients selected for the study were provided with oral information about the essence of the study, as well as their right to terminate their participation in the study, at any time, of their own free will.

The questionnaire consists of 33 questions to identify symptoms specific to urological diseases (ICD, BMI and BPH). The answers to each question are scored yes / no. The patient has the opportunity to choose one of two answers.

Pilot testing of the universal questionnaire was carried out as follows: patients were interviewed using the traditional method and using the universal questionnaire. The presence or absence of symptoms of urological diseases was ascertained, and the results of each of the survey methods were individually compared with the results of objective research methods (USS of the kidneys, bladder and prostate in men, urine analysis performed using test strips).

To determine the reliability and validity of the universal questionnaire in determining the presence of symptoms of urological disease, its degree of sensitivity, specificity and accuracy was assessed. The reliability of the information obtained when filling out the questionnaire was assessed by comparison with the results of objective research methods. And by calculating diagnostic sensitivity, specificity and diagnostic accuracy. The digital material was processed by the method of variation statistics.

Results and discussion.

At the first stage of the study, using the traditional survey method, it was found that out of 77 patients, 30 (39.0%) noted that they had a urological disease, 47 (61.0%) denied it.

At the second stage of the survey, the developed universal questionnaire was used in the same patients. As a result, it was found that out of 77 patients 64 (83.1%) noted the presence of symptoms of urological diseases, 13 (16.9%) - denied (Fig. 1).
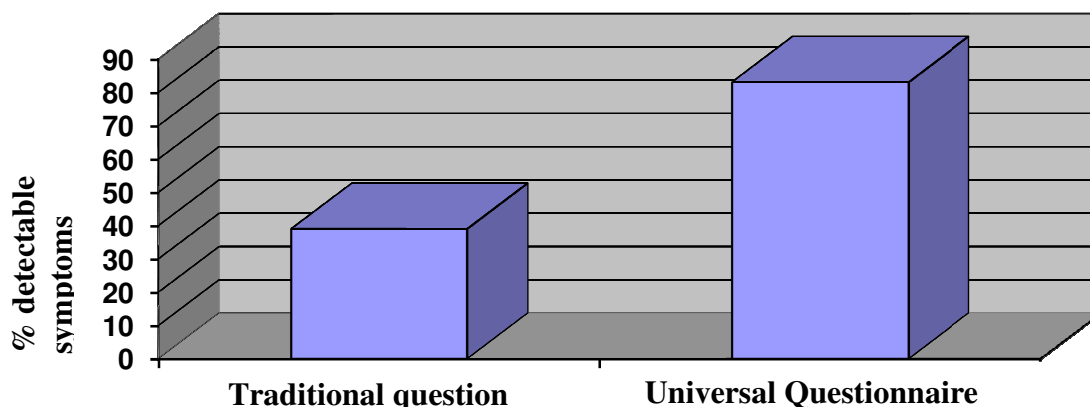
Rice. 1. Results of a patient survey conducted under the conditions of BOMC by means of a traditional survey and using a universal questionnaire.

For the purpose of comparative assessment of the results of the survey, both traditional and using a universal questionnaire, patients and signs of the disease identified by objective research methods, the data obtained from both studies were divided into two categories: positive and negative.

The results of the survey (traditional or using a universal questionnaire): those who have various complaints specific to urological diseases, issued by a computer program developed by us, as a symptom of a urological disease, were indicated with an affirmative answer; the absence of a complaint characteristic of a urological disease was indicated by a negative answer.

The results of objective research methods (objective examination of the patient, USS, urinalysis data, performed using test strips), when generally accepted signs of urological disease were found, were indicated with an affirmative answer. Those cases when no obvious signs of urological disease were found during an objective study, the results were indicated by a negative answer.

The results of the traditional patient survey in comparison with the data of objective research methods are presented in Table 1.

Of the 30 cases in which a symptom of the disease was identified using a traditional survey, confirmation by objective research methods was obtained in 21 cases, and in 9 cases, no urological disease was detected, i.e. the results of the traditional survey in 9 cases turned out to be incorrect.

Table 1. Comparison of the results of the traditional patient survey and objective research methods conducted at the BOMC

Symptom Responses Based on the Universal Questionnaire		The number of signs of the disease identified by objective research methods	
		Affirmative (n)	Negative (n)
Affirmative (n)	30	21	9
Negative (n)	47	33	14
Total	77	54	23

Of the 47 cases where the symptoms of urological disease were not detected using the traditional survey, in 14 cases the absence of the disease was confirmed by objective research methods, but in 33 cases the results of the traditional survey were false negative, i.e. in 33 cases, the traditional survey could not detect an existing urological disease.

The following test values were obtained in a traditional survey:

Sensitivity - 38.9%

Specificity - 60.9%

Accuracy - 45.5%

The results of the survey using a universal questionnaire in comparison with the data of objective research methods are presented in Table 2.

Table 2 Comparison of the results of the survey using the universal questionnaire and objective research methods conducted at the BOMC (n = 77).

Symptom Responses Based on the Universal Questionnaire		The number of signs of the disease identified by objective research methods	
		Affirmative (n)	Negative (n)
Affirmative (n)	64	51	13
Negative (n)	13	3	10
Total	77	54	23

Of the 64 cases in which the symptoms of the disease were identified using the universal questionnaire, confirmation by objective research methods was obtained in 51 cases, and in 13 cases, no urological disease was detected, i.e. the results of the survey using the universal questionnaire in 13 cases turned out to be incorrect.

Of the 13 cases when the symptoms of urological disease were not detected using the universal questionnaire, in 10 cases the absence of the disease was confirmed by objective research methods, but in 3 cases the results of the survey were false-negative, i.e. in 3 cases, a survey using a universal questionnaire could not detect an existing urological disease.

The following test values were obtained when interviewed using a universal questionnaire:

Sensitivity - 94.4%

Specificity - 56.5%

Accuracy - 79.2%

Table 3. Comparison of the information content of various survey methods based on the results of a study conducted at the BOMC

Indicators of the degree of reliability of the diagnostic method	Methods for interviewing patients to identify a symptom of the disease	
	Traditional survey method	Interview using a universal questionnaire
Sensitivity	38,9%	94,4%
Specificity	60,9%	56,5%
Accuracy	45,5%	79,2%

A comparative analysis of the results of various survey methods, conducted at the BOMC, to determine the diagnostic effectiveness of the survey methods under study, showed that the universal questionnaire is more sensitive and effective than the traditional survey method in the diagnosis of the most common urological diseases (ICD, BMI and BPH) (tab. 3).

The results of the trial testing of the universal questionnaire, conducted at the BOMC, showed that the developed universal questionnaire makes it possible to identify patients with urological problems who have applied to district medical associations for examination and treatment for various nosologies.

A comparative analysis of the diagnostic capabilities of the universal questionnaire and the traditional survey showed that the universal questionnaire has a higher sensitivity and diagnostic accuracy, and the use of this questionnaire allowed for a more effective diagnosis of urological diseases.

Conclusions: Thus, the inclusion of the developed questionnaire in the complex of diagnostic studies increases the efficiency and objectivity of diagnostics of the most common urological diseases in the conditions of the BOMC.

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