

International Prostate Symptom Score Really Appreciated by All Patients or Not?

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Purpose: To investigate the relationship between the accuracy of the answers provided by the patients to the International Prostate Symptom Score (IPSS) questionnaire and age and level of education.

Materials and Methods: Two hundred and thirty-eight men were given self-administered IPSS questionnaires. After 48 to 96 hours, the IPSS form was completed again with the assistance of a physician. The relationship of the difference between the self-administered IPSS and forms completed with assistance with age and level of education was evaluated through Wilcoxon test. *P* values less than .05 were considered significant.

Results: There was not a significant difference between the two IPSS among the high school or university graduates (*P* = .480). However, the difference was significant among the primary and secondary school graduates (*P* = .042 and *P* = 0.34, respectively). Of values obtained from self-administered IPSS forms and those completed with the assistance of a physician, there was a statistically significant difference in the group ≥ 60 years of age.

Conclusion: Age ≥ 60 years and being primary or secondary school graduate are factors lowering the comprehension of the IPSS by the patients. Older patients and those with lower education could benefit from the assistance of a physician while completing this questionnaire.

Keywords: questionnaires, education, prostatic hyperplasia, predictive value of tests

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INTRODUCTION

A patient's perception of his health is very important in terms of quality of life; however, it is based on personal and subjective knowledge. It is important to make this information objective for the use of standard algorithms in treatment and follow-up. Numerous forms have been designed for this purpose.⁽¹⁾

The International Prostate Symptom Score (IPSS), which is one of the most frequently used questionnaires in urology practices,

was developed by the American Urological Association.^(2,3) Despite undeniable benefits of IPSS questionnaires, the information that is provided can be affected by level of perception and the present mood of the subject, as well as the age and the level of education that may indirectly affect the above-mentioned parameters.⁽⁴⁾ In the present study, we investigated the relationship between the accuracy of the answers given to the IPSS questionnaires and the level of education and age.

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MATERIALS AND METHODS

Two hundred and forty-seven men between 20 and 83 years of age who presented to the Urology Outpatient Clinic for any reason and who had not previously completed the IPSS form were evaluated in our study.

Patients were questioned regarding their age, level of education, and whether or not they had any neurologic diseases, such as Alzheimer's disease. Thereafter, patients were grouped according to their age and level of education.

International Prostate Symptom Score forms, validated by the Turkish Urological Association, were given to the patients, and they were asked to complete the IPSS forms without any assistance.⁽⁵⁾ Forty-eight to 96 hours later, 238 (96.4%) patients were re-evaluated on the control visit and the IPSS form was completed with the assistance of the physician. All the treatment plans and recommendations concerning the changes on life-style were given on the control visit in order not to cause any differences between the symptoms of both visits.

It was evaluated whether the difference between the self-administered IPSS and scores obtained with the assistance of the physician was related to the age and level of education. All the gathered data were analyzed using SPSS software (the Statistical Package for the Social Sciences, Version 13.0, SPSS Inc., Chicago, Illinois, USA) through Wilcoxon test. *P* values less than .05 were considered significant.

RESULTS

The mean IPSS answered with and without the assistance of the physician are reported in Table 1. There was not a significant difference between

Table 1. Education level and IPSS of the patients and the physician

| Education level | Number (%) | Patient's IPSS, mean | Physician's IPSS, mean | <i>P</i> |
|----------------------|-------------|----------------------|------------------------|----------|
| Primary school | 128 (53.8%) | 12.16 | 15.80 | .042 |
| Secondary school | 29 (12.1%) | 10.21 | 7.13 | .034 |
| High school or above | 82 (34.4%) | 7.65 | 6.98 | .480 |

IPSS indicates International Prostate Symptom Score.

Table 2. Comparison of the age and IPSS of the patients and the physician

| | < 60 years | ≥ 60 years |
|------------------------|------------|------------|
| Patient's IPSS, mean | 8.21 | 10.15 |
| Physician's IPSS, mean | 7.10 | 17.38 |
| <i>P</i> | .48 | .015 |

IPSS indicates International Prostate Symptom Score.

the two IPSS among the high school or university graduates ($P = .480$). However, the difference was significant among the primary and secondary school graduates ($P = .042$ and $P = 0.34$, respectively).

Of values obtained from self-administered IPSS forms and those completed with the assistance of a physician, there was a statistically significant difference in the group ≥ 60 years of age (Table 2).

DISCUSSION

Recently, many questionnaires prepared on different subjects have been used in urology practices. The IPSS has become quite popular in a short time, and was validated after being translated into various languages.⁽⁶⁾ It was reported that the IPSS was a reliable and simple evaluating method, which was not affected by the level of education and socio-demographic variables.^(1,7) However, our clinical observations have demonstrated that most of the patients were having difficulties in completing the IPSS form. Studies show that 60% of the urologists in the USA and 70% of the urologists in France use the IPSS.^(1,8) These results can be interpreted as there are similar findings to our clinical observations on IPSS in other countries as well.

The questionnaires were prepared in a way that the patient could complete it by himself; thus, obviating the potential effect of a person assisting them to complete the form.⁽¹⁾ Nonetheless, illiterates or visually impaired subjects inevitably have to complete the forms with assistance. Studies on this subject have shown that unless the assistant contributes to the answers, the approximate scores are obtained when the questionnaires are completed by the patient independently or with the assistance of a health worker.^(5,9,10) In the present study, no significant

difference was demonstrated between the self-administered IPSS and the scores obtained in presence of an assistant physician among young patients and patients with a high level of education.

In a study conducted in Spain involving 666 patients with benign prostatic hyperplasia, the effect of several socio-demographic variables, including the level of education, on the symptom score was investigated. Although the effect of a low level of education on the symptom score was limited, it was shown that it might have a significant effect if associated together with pain and depression or anxiety.⁽⁴⁾ In the present study, when patients younger than 60 years of age were compared with the patients ≥ 60 years old, it was found that the rate of accurate completion of the IPSS forms for the younger patients was significantly better. However, within our study group, the mean level of education of the younger group was higher. The reason for the difference between these two groups may be the level of education as well as the mental alterations due to age, and we think that this needs to be studied further in larger studies.

Netto Junior and de Lima showed that the level of education had no effect on IPSS. However, they reported that an orientation was given about how to complete these questionnaires at the beginning of their study.⁽²⁾ Such an approach might affect the outcomes, particularly in favor of the patients with low level of education. Bozlu and colleagues also showed that the level of education had no impact on their study.⁽⁵⁾

In other studies conducted in Brazil via the validated Portuguese version of the IPSS and in Argentina via the Spanish version of the IPSS, patients were divided into two groups according to their level of education, and the rate of accurate completion of the questionnaire was found to be low in the group with low level of education in both countries, especially in Argentina. However, only the difference in the Argentina group was significant.⁽¹¹⁾ In the present study, a statistically significant difference was found when the forms were completed with or without the assistance of the physician in primary and secondary schools' graduates.

It is very important to know the language of the questionnaire in order to be able to understand and fill it in accurately. In many countries, although the native language of a considerable number of people is different from the official language and they have a limited command of the language, the validated questionnaire can only be obtained in the official language. Naturally, the outcomes of these forms completed by such people alone are suspicious. The words that are used in the original IPSS form are not frequently encountered and routinely used words for many people until they reach an advanced level of education.⁽¹²⁾ The reading levels of 28% of the subjects who participated in the mentioned study were significantly lower than what they declared, and it was emphasized that the high level of education declared by the patient might not be sufficient alone to understand the IPSS form. In the present study, similar results were obtained. Although the subjects with high levels of education completed the questionnaire significantly more accurately, this does not always guarantee accurate completion.

In order to complete the IPSS form accurately, correct understanding is necessary. Although the parameters, such as age and level of education, are effective in understanding the questionnaire accurately, they are not sufficient alone, and the understanding capacity of a person at that moment must be evaluated. Unfortunately, most of the neurocognitive tests used in neurology and psychiatry are time-consuming and not practical. The development of an easily applicable "reading and comprehension" test could be very useful for this purpose.

CONCLUSION

In summary, age ≥ 60 years and being primary or secondary school graduate are factors lowering the comprehension of the IPSS by the patients. Older patients and those with lower education could significantly benefit from the assistance of a physician while completing this questionnaire.

CONFLICT OF INTEREST

None declared.

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