

ORIGINAL ARTICLE

นิพนธ์ต้นฉบับ

Physician-assisted versus Patient-administered International Prostate Symptom Score (IPSS) in Thai Language

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The International Prostate Symptom Score (IPSS) is the most commonly used patient-administered scoring system for the quantification of benign prostatic hyperplasia symptoms. The IPSS questionnaire has been translated into the Thai language. The objective of this study was to compare two methods of using the IPSS ; namely self-administration by the patient, and by the physician interviewing the patient. Eighty two patients completed IPSS questionnaires by themselves first, then they were interviewed by the physician. Total symptom scores (questions 1-7) and symptom severity grading were compared between the two modes of administration. Multivariate analysis of variance was performed to assess the effect of age, occupation , level of education and self-assessment to complete the IPSS. Mean total symptom scores and grading assessments by the physician versus patient-administered questionnaires were similar (16.16 versus 16.40 and 2.15 versus 2.12). But there was a statistically significant difference in the mean question scores of question 5 and question 7 ($p=0.004$ and $p=0.032$). Age, occupation and level of education did not show statistical difference significance by multivariate analysis.

There was no difference in total symptom score and symptom severity grading but the mean question scores showed some difference when the questionnaire was administered by the physician and by patient self-administration .

Index: International prostate symptom score, Benign prostatic hyperplasia.

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Physician-assisted versus Patient-administered International Prostate Symptom Score (IPSS) in Thai Language

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The International Prostate Symptom Score (IPSS) ได้ถูกนำมาประเมินความรุนแรงของอาการของผู้ป่วย ต่อมลูกหมากโต (Benign Prostatic Hyperplasia) โดยให้ผู้ป่วยเป็นผู้ตอบ และได้รับการแปลเป็นภาษาไทย เพื่อใช้ในคนไทย จุดประสงค์ของการศึกษานี้เพื่อเปรียบเทียบผลของการที่ให้ผู้ป่วยตอบเอง และแพทย์เป็นผู้ถาม เพื่อดูความเสถียรของแบบสอบถาม โดยการให้ผู้ป่วยที่มาด้วยอาการดังที่ปรากฏในแบบสอบถาม 82 คนตอบแบบ สอบถาม และแพทย์จะถามซ้ำ นำคะแนนที่ได้มาเปรียบเทียบกัน พบว่าคะแนนรวมที่ได้ ระดับของอาการ ไม่มีความแตกต่างกัน ในขณะที่แยกดูรายข้อ พบว่ามีความแตกต่างกันอย่างมีนัยสำคัญทางสถิติในข้อ 5 และข้อ 7 ของแบบสอบถามระหว่างผู้ป่วยตอบเองและแพทย์เป็นผู้ถาม สำหรับอายุ การศึกษา อาชีพ การที่ผู้ป่วยตอบเองหรือมีผู้อื่นช่วยในการตอบ ไม่มีผลกระทบต่อคะแนนรวมที่ได้ อย่างไรก็ตาม แม้ว่าจะมีความแตกต่างของคะแนนในบางข้อของแบบสอบถาม แต่คะแนนรวมและการแบ่งระดับอาการไม่มีความแตกต่างกัน ดังนั้นจึงน่าจะใช้ได้ในผู้ป่วยบางกลุ่ม ที่แพทย์จำเป็นต้องเป็นผู้ถามเอง เช่น ผู้ป่วยที่ไม่รู้หนังสือ หรือตาพิการ เป็นต้น

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The International Prostate Symptom Score (IPSS) is the most commonly used self-assessment questionnaire for scoring the quantification of benign prostatic hyperplasia (BPH). Here in Thailand it was adapted from the American Urological Association score about four years ago. This scoring system is used to determine the severity of the symptoms that allow the physician to determine whether or not to treat the patient.^{2,3}

The IPSS was translated into Thai language by the Urological Association of Thailand. This questionnaire is now widely accepted by the physicians. However, one unclear area is the consistency of the scoring system between when the questionnaire is administered by the physician and when self-administrated by the patient.

Material and Methods

A total of eighty-two male patients participated in the study. They all presented with complaints of prostatism that were not treated by the physician. The IPSS questionnaires were initially completed by the patient or alone with some help by relatives, and then each patient was interviewed by the physician. This questionnaire has 7 questions¹ :

1. During the last month or so, how often have you had a sensation of not emptying your bladder completely after you finished urinating?
2. During the last month or so, how often have you had to urinate again less than 2 hours after you finished urinating?
3. During the last month or so, how often have you found you stopped and started again several times when you urinated?
4. During the last month or so, how often have you found it difficult to postpone urination?
5. During the last month or so, how often have you had a weak urinary stream?
6. During the last month or so, how often have you had to push or strain to begin urination?
7. During the last month or so, how many times did you most typically get up to urinate from the time you

went to bed at night until the time you got up in the morning?

Responses

- 0 - Not at all
- 1 - Less than 1 time in 5
- 2 - Less than half the time
- 3 - About half the time
- 4 - More than half the time
- 5 - Almost always

This study was started in July 1996 and completed in October 1996.

Univariate analysis was performed by paired t-testing, comparing total symptom scores (questions 1 - 7), and individual question scores. Chi-squared testing was used to evaluate differences among the categories of symptom severity. Multivariate analysis was performed to assess the effects of age, occupation, level of education, and self administration alone or with some help from relatives.

Results

The 82 patients with the design symptoms were presented with the IPSS questionnaire. Overall, the average patient age was 63.4 years (range from 40 - 87 years).

Level of education :

- 9.6% had finished less than grade 4 education.
- 36.7% had finished grade 4-6 education.
- 24.4% had finished grade 7-12 education.
- 16.0% had bachelor degrees.
- 2.5% had more than bachelor degrees.

Occupation :

- farmer 11.0%
- employee 20.7%
- government officials and retired 30.5%
- entrepreneur 21.9%
- others 1.2%
- no profession 14.7%

75.3% of the patients completed the questionnaire alone while 24.7% needed some assistance from relatives.

The mean total symptom score of the patient-administered questionnaire was 16.40 points and for the physician administration it was 16.16 points. Although the mean total symptom score for patient administration was higher, there was no statistical significance. However, when the mean scores for each question were separately compared we found that question 5, differences were 2.28 and 2.84, respectively ($p=0.004$) and for question 7 were 3.13 and 3.23, respectively ($p=0.032$) (Table 1).

When the total symptom scores were classified into mild (0-7), moderate (8-19) and severe (20-35), comparison of the modes of administration of the questionnaire showed no statistical difference (Table 2).

The effects of age, occupation, level of education and self-assessment without some help did not show statistical significance under multivariate analysis ($p>0.05$).

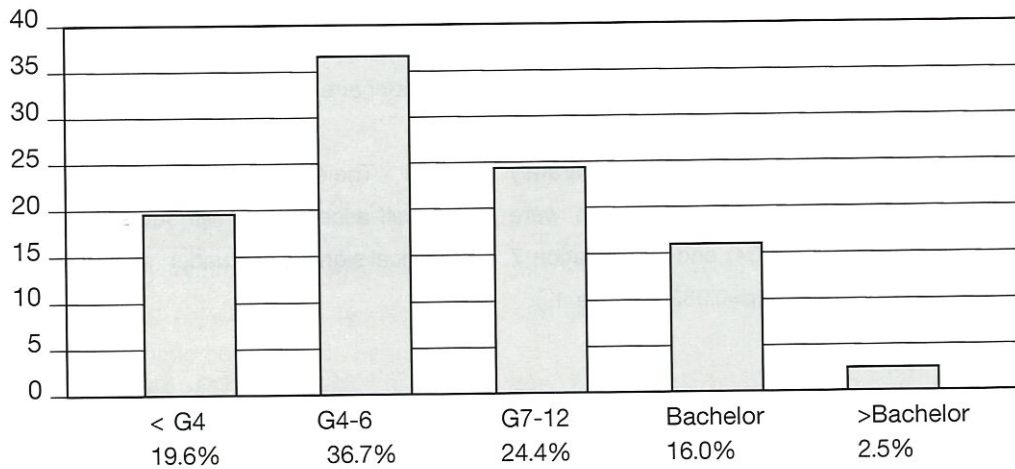
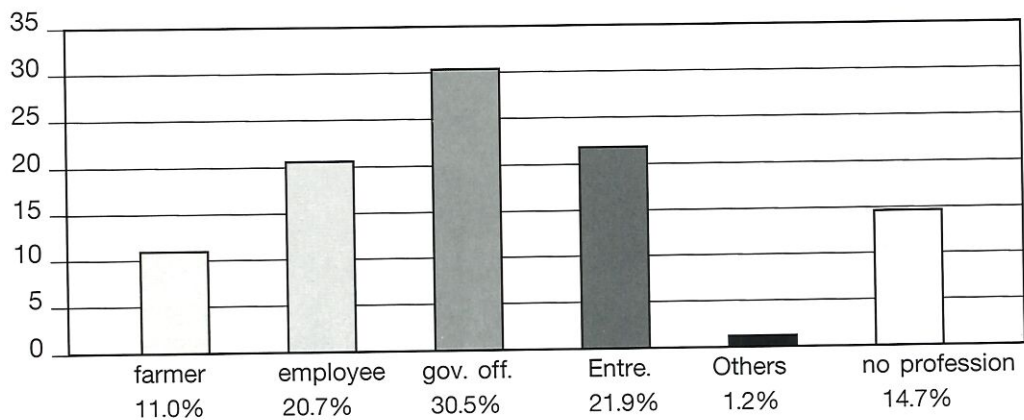
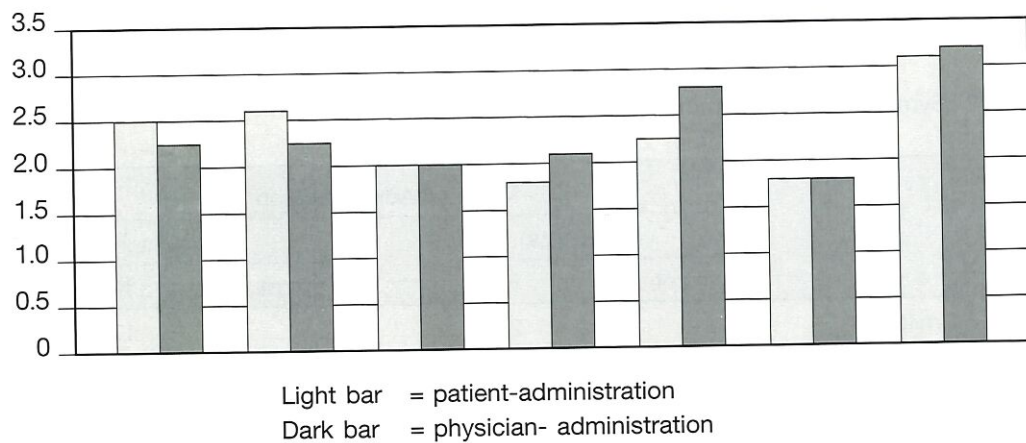
Table 1 Mean total symptom scores and mean for each question score for patient-administration versus physician administration of the IPSS questionnaire

	Patients		Physicians		
	Mean	SD	Mean	SD	2-tail sig
Q 1	2.52	2.01	2.27	2.04	0.183
Q 2	2.58	1.86	2.28	1.84	0.090
Q 3	2.01	2.08	2.00	1.94	0.940
Q 4	2.07	2.17	1.82	2.01	0.094
Q 5	2.28	2.13	2.84	2.12	0.004*
Q 6	1.83	2.11	1.83	2.07	1.000
Q 7	3.13	1.40	3.23	1.39	0.032*
Total score	16.40	9.41	16.16	8.49	0.682

* Statistical significance

Table 2 Symptom severity grading distribution

	Mode of Administration			
	Patients		Physicians	
	No.pt.	%	No.pt.	%
0-7 (mild)	17	20.7	14	17.1
8-19 (moderate)	36	43.9	41	50.0
20-35 (severe)	29	35.4	27	32.9
Total	82	100	82	100

Figure 1 Level of Education**Figure 2** Occupational classification**Figure 3** Mean scores for each question for patient administration versus physician administration.

Discussion

The International Prostate Symptom Score was known as the American Urological Association Score until the World Health Organization International Committee accepted at 4 years ago. The IPSS is a subjective quantification questionnaire intended to evaluate the symptoms of benign prostatic hyperplasia patients. It has been subjected to correlation studies to the many urodynamic parameters. The IPSS has been demonstrated to be highly reliable and has a patient-administered questionnaire test-retest correlation of 0.93. It has been shown to accurately discriminate symptomatic BPH patients from controls.

There have been studies that evaluated the influence of the physician administering the IPSS to illiterate patients and this procedure seemed not to impair its quality⁴. Recently, a study has shown that there is no difference in the mode of administration between patient- and physician administration of the this questionnaire⁵.

The IPSS questionnaire has been translated into Thai language but there are many illiterate patients in Thailand who require the physicians to contact on

interview. This study was designed to measure differences in the Thai language IPSS when administered by the physician versus patient self-administration.

In this study we have demonstrated that there is no statistical difference in the total symptom scores and symptom severity grading between patient and physician administration. In multivariate analysis, there is no effect of age, education, profession, and others helping to answer the questionnaire to both mean total symptom scores. But we have also shown that there was a statistical difference in two mean question scores, question 5 and question 7. These ask about the symptoms of poor stream urination and nocturia. The mean of both questions were higher when the physician administered the questionnaire. The reason for this is not clear, but it may be from inconsistency of the symptoms or perhaps the understanding of the question between the physician and the patient is somewhat different.

From our study, there was no significant difference in total symptom scores or symptom severity grading that require the physician do make a therapeutic decision in these patients.

References

1. Barry MJ, Fowler FJ Jr, O'Leary MP, Brubawitz RC, Holtgrewe HL, Mebust WK, Cockett AT. The American Urological Association symptom index for benign prostatic hyperplasia. *J Urol* Nov. 1992; 148(5) :1549 -64.
2. Blaia JG. Urinary symptoms and symptom scores. *J Urol* Nov. 1993; 150(5 pt 2) :1714
3. Benign prostatic hyperplasia: Diagnosis and Treatment. Clinical Practice Guidelines, Number 8. Agency for Health Care Policy and Research, US Department of Health and Human Sciences, 1994: 8:29
4. Netto unior NR, De Lima ML. The influence of patient education level on the International Prostate Symptom Score. *J Uro* Jul. 1995; 154(1) :97 - 9
5. Plante M, Corcos J, Gregoire I, Belanger MF, Brock G, Rossingol M. : The International Prostate Symptom Score : physician versus self-administration in the quantification of symptomatology. *Urology* Mar.1996; 43(3):326