นิพนธ์ต้นฉบับ

การนำแบบสอบถามชนิดรูปภาพ (VPSS) มาใช้แทนการตอบแบบสอบถามมาตรฐานเดิม (IPSS) ในผู้ป่วยที่มีอาการทางระบบทางเดินปัสสาวะส่วนล่าง

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บทคัดย่อ

วัตถุประสงค์: เพื่อประเมินผลทางคลินิกของการใช้แบบสอบถามชนิดรูปภาพ (visual prostate symptom score; VPSS) เปรียบเทียบกับแบบสอบถามมาตรฐานเดิม (international prostate symptom score; IPSS) ในผู้ป่วยที่มีอาการทางระบบทางเดินปัสสาวะส่วนล่าง

ผู้ป่วยและวิธีการศึกษา: ทำการศึกษาในผู้ป่วยชาย จำนวน 126 คน ซึ่งมีอาการทางระบบทางเดินปัสสาวะส่วนล่าง โดยให้แบบสอบถามทั้ง 2 แบบ คือ IPSS และ VPSS ซึ่งประกอบด้วยภาพแสดงความหมายเช่นเดียวกับ IPSS การวิเคราะห์ทางสถิติใช้ Spearman's correlation test.

ผลการศึกษา: มีความสัมพันธ์อย่างมีนัยสำคัญทางสถิติระหว่างการใช้แบบสอบถามทั้ง 2 ชนิด (VPSS และ IPSS) ในคะแนนรวม และหัวข้อย่อย คือ frequency, nocturia, weak stream และ QoL โดยพบว่า VPSS และ IPSS มีแนวโน้มที่พบความสัมพันธ์ดีในผู้ป่วยชายที่มีระดับการศึกษาสูง

สรุป: การใช้แบบสอบถามชนิดรูปภาพ มีความสัมพันธ์กับการใช้แบบสอบถามมาตรฐานอย่างมีนัยสำคัญทางสถิติ โดยแบบสอบถามชนิดรูปภาพใช้ได้ง่าย และสามารถใช้เป็นทางเลือกในการประเมินผู้ป่วยที่มีอาการทางระบบทางเดินปัสสาวะส่วนล่าง

Original article

Correlation Evaluation of a New Visual Prostate Symptom Score and the International Prostate Symptom Score in Thai Men with Lower Urinary Tract Symptoms

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Abstract

Objective: To evaluate the clinical usefulness of a new visual prostate symptom score (VPSS), and to compare it to the international prostate symptom score in Thai men with lower urinary tract symptoms (LUTS).

Materials and Methods: One hundred twenty-six Thai men with LUTS were given the IPSS and VPSS. The VPSS is composed of pictograms representing four IPSS questions related to frequency, nocturia, weak stream and quality of life. Statistical analysis was performed using Spearman's correlation test.

Result: There are statistically significant correlations between VPSS and IPSS, in total and individual scores (frequency, nocturia, weak stream and QoL). In subgroup analysis, VPSS and IPSS tend to correlate better with men of higher education.

Conclusion: The VPSS correlates significantly with the IPSS. It is an easy and useful alternative tool to the IPSS in the evaluation of Thai patients with LUTS.

Introduction

IPSS is accepted by urologists worldwide as a standard tool to convert subjective symptoms to numbers that can be quantified and thus become useful for longtitudinal symptoms assessment in LUTS patients[1].

The weak point of the IPSS is that patients with lower educational levels experience greater difficulty completing the questionnaire. It requires a grade 6 reading level (American educational standards) to understand the IPSS. There is also an inverse relationship between the level of education and symptom misrepresentation; and, because of the differing perceptions of individuals to the questions, the scores of patients are not directly comparable[2-4].

Dr. Adam E. Groeneveld is a urologist at Mbabane Hospital (Mbabane, Swaziland). He has worked for many years in African countries and found that the IPSS is difficult to administer effectively, and requires much assistance in order to do so. Thus, he developed the Visual Prostate Symptom Score (VPSS), a simplified assessment of the force of the urinary stream. The VPSS also assesses urinary frequency during the day and night, as well as the patient's overall quality of life, which is the single best predictor of treatment outcome[5-7].

In Thailand, urologists encounter different problems with the IPSS, because of its complexity. In most governmental hospitals, 100-200 patients visit the urology clinic each day. Therefore, there is a limited amount of time for the physician and patient to communicate. Not every patient can complete a full IPSS assessment. Especially the older patients, who find that the questionnaire is difficult to understand; most of them need an explanation of the questions from the doctor or nurse in order to fill the form out. This influences the patient's responses and affects the interpretation of the questionnaire. For these reasons, doctors usually neglect this tool as it is time consuming.

Due to the courtesy of Dr. Groeneveld, we have been permitted to use the VPSS questionnaire in this study, in the hope that it can be a useful and comparable alternative tool to the IPSS questionnaire.

Materials and Methods

One hundred twenty-six Thai men presenting with lower urinary tract symptoms (LUTS) at Chulalongkorn King Memorial Hospital were given the IPSS and the VPSS (Figure 1); the VPSS is composed of pictograms representing four IPSS questions related to frequency, nocturia, weak stream and quality of life. Other than the medical history, general information, such as educational level, occupation and income, was also taken.

Statistical analysis was performed using Spearman's correlation test. P value < 0.05 was accepted as statistically significant.

Results

A total of 126 men (mean age 61, range 45-80 years) were evaluated from February to April, 2012. The educational levels and income of the study subjects are shown in Table 1.

There are statistically significant positive correlations between the total VPSS and IPSS scores, VPSS QoL, and IPSS QoL scores, as well as the VPSS and IPSS questions related to daytime urinary frequency, nocturia, and force of the urinary stream (Table 2 and Figure 2).

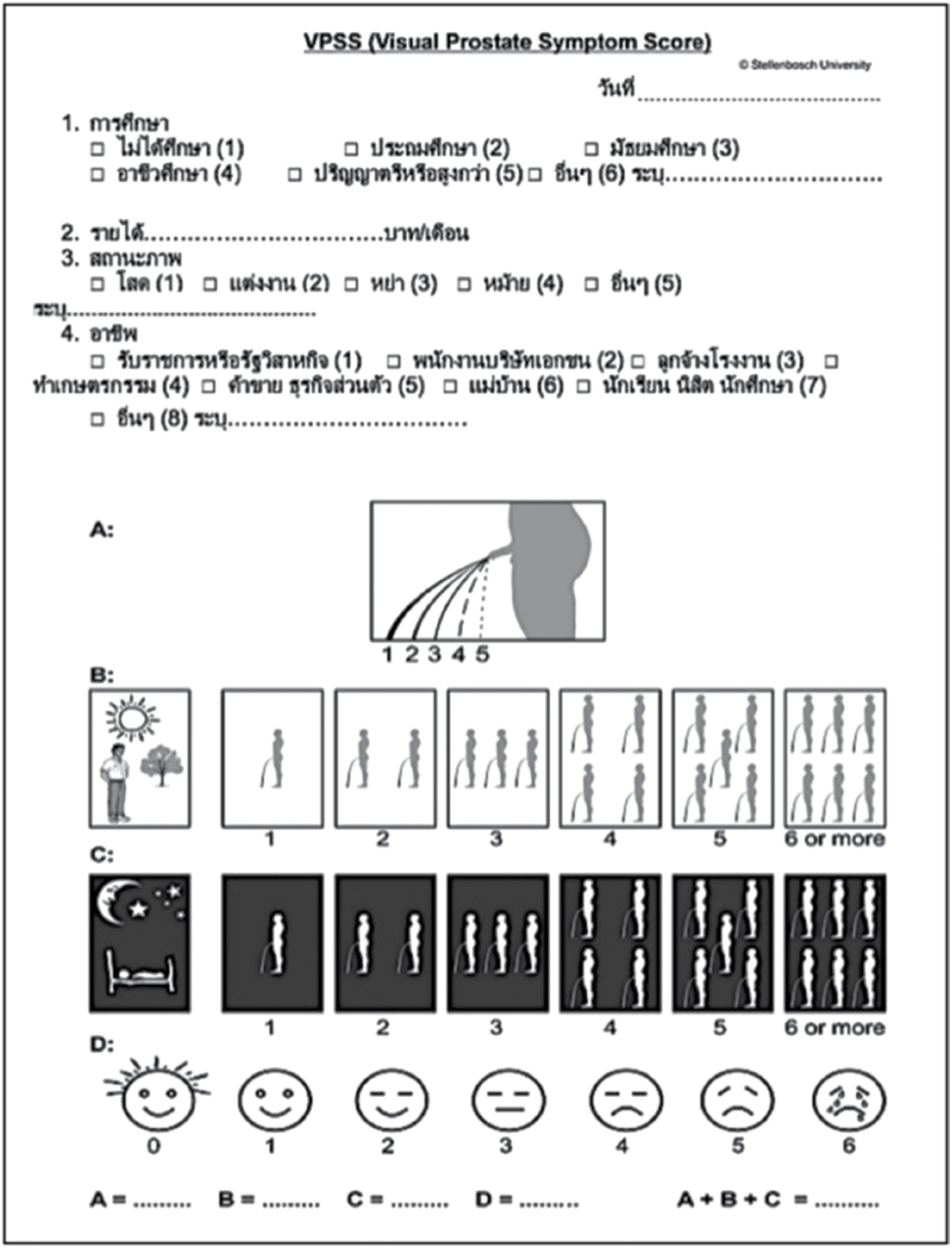

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Figure 1. Visual Prostate Symptom Score (VPSS)

Table 1. Educational level and income of study subjects

	All patients	Primary	High school	Vocational	College
Patients (n)	126	11 (8.7%)	29 (23%)	18 (14.3%)	68 (54%)
Age (y)	61 (45-80)	63 (45-76)	61(47-76)	61 (52-70)	60 (49-80)
Income (Thai baht)	26,270 (1,500-150,000)	11,682 (3,000-20,000)	14,086 (5,000-30,000)	17,056 (1,500-30,000)	36,265 (10,000-150,000)

Table 2. Correlation between parameters of Visual Prostate Symptom Score (VPSS) and International Prostate Symptom Score (IPSS)

	Correlation Coefficient (r)	P Value
• Total VPSS vs QoL	+0.602	<.0001
• Total IPSS vs QoL	+0.612	<.0001
• VPSS QoL vs IPSS QoL	+0.765	<.0001
• Frequency: VPSS Q1 vs IPSS Q2	+0.302	.001
• Nocturia: VPSS Q2 vs IPSS Q7	+0.659	<.0001
• Weak stream: VPSS Q3 vs IPSS Q5	+0.577	<.0001

When classified by educational levels, we found that the total VPSS and IPSS correlate better with men of higher education.

Discussion

The VPSS was proven to correlate with the IPSS. The VPSS can be completed without assistance by a greater proportion of men with limited education. The use of the VPSS instead of the IPSS may facilitate the evaluation of LUTS in patients who are illiterate or have limited education[5,6]. In this study of Thailand's population, within a slightly different context, we can see that this tool is easier and faster than the alternative; it can help physicians complete patient evaluations and provide proper treatment in less time. The VPSS and IPSS correlate better in men with a higher education. It may be a reflection of the complexity of the IPSS questionnaire that the higher educated patients can interpret both questionnaires correctly, while men with a lower education may misunderstand the IPSS and VPSS, thus the two scores do not correlate well enough.

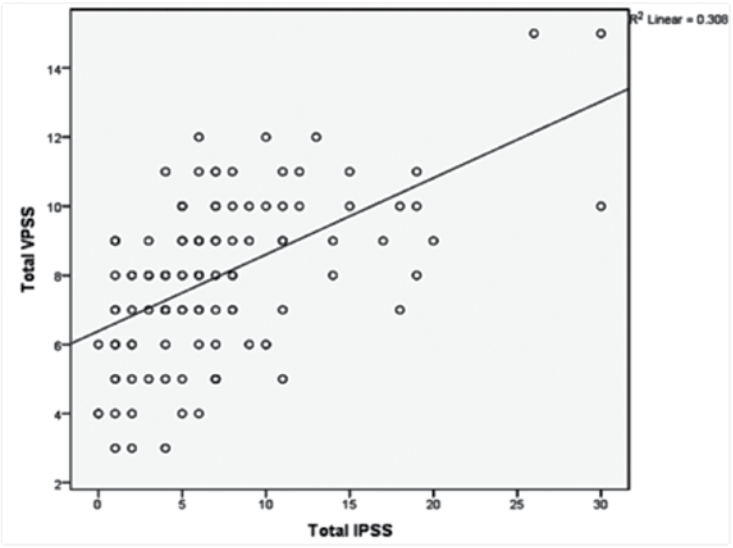

Figure 2. Correlation between total Visual Prostate Symptom Score (VPSS) and total International Prostate Symptom Score (IPSS) (r =+0.650, P < .0001)

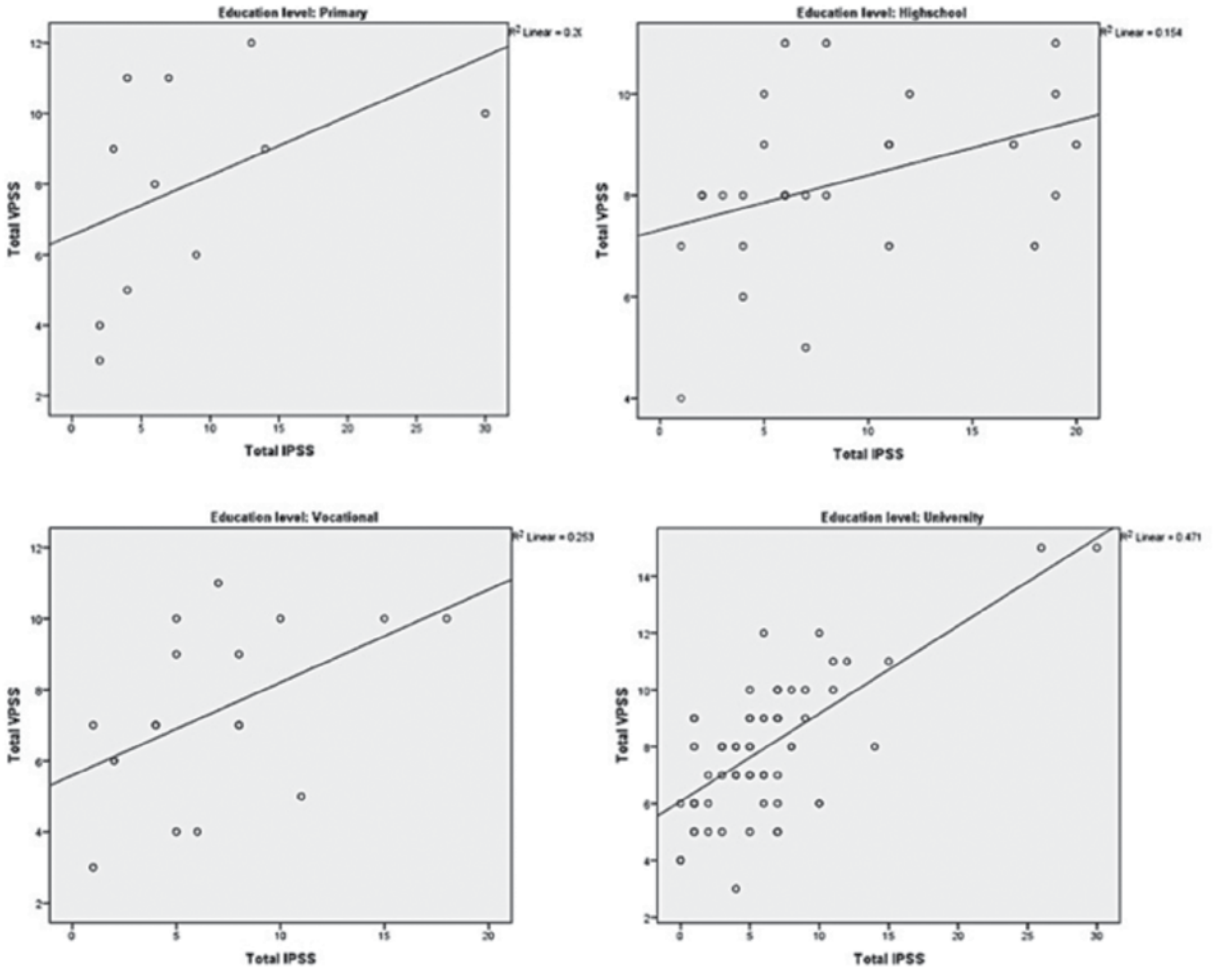

Figure 3. Correlation between total Visual Prostate Symptom Score (VPSS) and total International Prostate Symptom Score (IPSS) in patients with different educational levels.

Conclusion

The VPSS correlates significantly with the IPSS. It is an easy and useful alternative to the IPSS in the evaluation of Thai patients with LUTS.

Acknowledgements

The pictograms were created by Carol Lochner, visual artist employed by the University of Stellenbosch. The VPSS was distributed with the permission of Dr. Adam E Groeneveld.

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