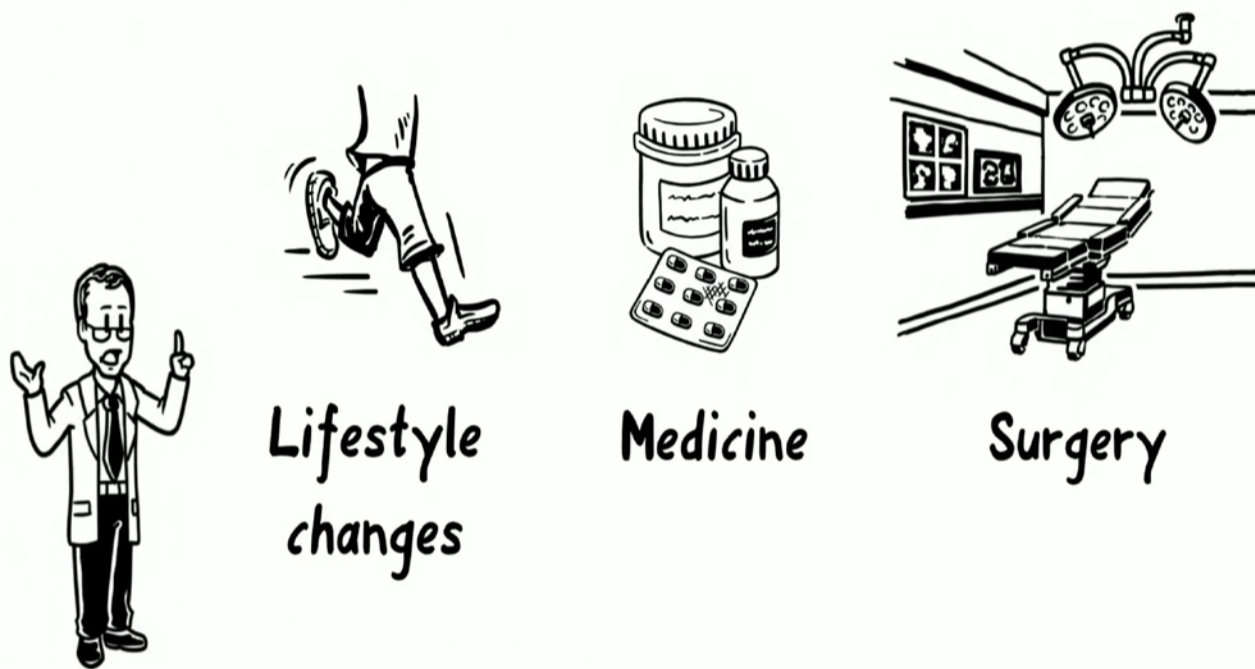


INTRODUCTION & OBJECTIVE

Benign prostatic hyperplasia (BPH) is a chronic progressive disease prevalent amongst elderly men, with 16.5% of Singaporean men, above the age of 40, having moderate-severe lower urinary tract symptoms¹. Despite being a pervasive condition, the public knowledge and perception of the disease is lacking.

Objective:

- Determine the public baseline knowledge of clinical BPH
- Determine if an education video would improve the population's understanding of BPH
- Determine if an education video would improve the population's understanding of the role of the family physician in managing early/moderate BPH.



MATERIALS & METHODS

An educational video was developed educating patients on the basic knowledge and management of BPH. A short questionnaire, containing 12 questions, was implemented before and after the video.

100 patients and family members were recruited from the Urology outpatient clinic. The participants demographics such as gender, age and education level were recorded.

Statistical analysis for continuous variable was performed with T-test, Mann-Whitney U and Kruskal-Wallis Test; categorical analysis was performed with McNemar and Pearson Chi-square.

Variables with $p < 0.1$ in the univariate generalized linear model were selected for the multivariate model, stepwise method was used to determine the final factors in the multivariate model.

RESULTS

Median questionnaire scores before and after the educational video were 7 (IQR 6-8) and 11 (IQR 9-11) respectively, all participants had improvement in their scores after the video with a median improvement of 3 points (IQR 2-4) which was statistically significant ($p < 0.005$). Changes in scores was statistically significant for education level ($p < 0.005$). See Table 1.

Table 1. Participant demographics and median improvement in scores.

	Frequency (N=100)	Median improvement in scores (IQR)	P value
Gender			
Male	92	3 (2.3-4.0)	0.436
Female	8	2 (2.0-2.8)	
Age Group			
≤40	5	2 (1.0-2.0)	0.141
41-50	10	2.5 (1.75-3.0)	
51-60	16	3.5 (3.0-4.0)	
61-70	48	3.5 (3.0-4.0)	
>70	21	3.0 (2.0-4.0)	
Education			
No education	2	2.0 (2.0-2.0)	<0.005
Primary	9	4.0 (1.5-4.0)	
Secondary	31	3.0 (2.0-4.0)	
ITE	21	4.0 (3.0-4.0)	
Diploma	30	3.0 (3.0-4.0)	
Degree	7	2.0 (2.0-2.0)	

In the multivariate linear regression model, ages 51-60, and an ITE background significantly increased the mean improvement in scores, whilst, a degree holder had significantly lower improvement in mean scores. Table 2.

Table 2. Univariate and multivariate linear regression of factors affecting improvement in scores

Variable	Univariate Analysis		Multivariate Analysis	
	Estimate (95% CI)	P Value	Estimate (95% CI)	P Value
Gender				
Female	-	-	-	-
Male	1.049 (0.274-1.824)	0.009	-	-
Age				
<41	-	-	-	-
41-50	-0.767 (-1.477 - -0.57)	0.035	-	-
51-60	0.563 (-0.021-1.146)	0.059	0.764 (0.220-1.307)	0.006
61-70	0.348 (-0.083-0.778)	0.112	-	-
>70	-0.114 (-0.648-0.421)	0.673	-	-
Education Level				
No education	-	-	-	-
Primary	0.267 (-0.492-1.027)	0.486	-	-
Secondary	-0.364 (-0.830-0.101)	0.124	-	-
ITE	0.790 (0.279-1.301)	0.003	0.846 (0.351-1.340)	0.001
Diploma	0.157 (-0.317-0.632)	0.513	-	-
Degree	-1.326 (-2.137 - -0.514)	0.002	-1.121 (-1.889 - -0.352)	0.005

Questions 7-12 determined the patient's understanding of the management of BPH, in which the video resulted in a significant improvement in participants understanding in this aspect for questions 7 to 11. Age resulted in a significant improvement for Questions 9-11, and education for Questions 7, 9-10.

CONCLUSION

Our study shows that our education video on BPH improved the participants general understanding of BPH and the role of the family physician in its management, especially those aged 51-60, and participants with ITE qualification; however, participants who are degree holders had lower improvement in scores.

