Erectile Dysfunction screening in a community: Findings from National Survey

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Introduction

Erectile dysfunction (ED) is a prevalent problem across a variety of general male population. International Index of Erectile Function 5-item (IIEF-5) is a brief, validated, multidimensional tool to assess erectile function1. In a multicultural country like Malaysia, ED is a taboo topic to be discussed with and limited information regards to it. This study provides findings of ED using IIEF-5 as a screening tool in a community survey in Malaysia.

Methods

Data were obtained from the National Health and Morbidity Survey (NHMS) 2019, a cross-sectional study using a stratified cluster sampling design. A total of 2404 eligible respondents of sexually active adult men (≥18 years old) completed a self-administered IIEF-5 questionnaire. The International Index of Erectile Function (IIEF-15) consists of 15 variables was developed for determining the efficacy of treatment in controlled clinical trials1. The IIEF-5 is the simplified version of IIEF-15,consists of five variables. Each variable rated 1-5, giving a total aggregate score of 25, with lower values representing a poorer sexual function. Analysis of variance (ANOVA) was performed using SPSS version 16.

Results

The overall response rate was 98.6%. The overall composite mean score was 18.16(±4.12). The mean score of each variable were erection confidence (3.48 ±0.85), erection firmness (3.39 ±1.09), maintenance frequency (3.38 ±1.14), maintenance ability (4.27 ±1.05), and intercourse satisfaction variables (3.63 ±1.11). Population 60 years and above showed a significantly lowest mean score in the overall score(15.52 ±4.05), erection confidence (2.90 ±0.87), erection firmness (2.87 ±0.95), maintenance frequency (2.89 ±0.99), maintenance ability (3.75 ±1.20), and intercourse satisfaction variable (3.12 ±1.09). Mean score of all variables were also significantly lower among rural dwellers, low-income status and non-employed persons. Higher education and household income status had a higher mean score of all variables.

Conclusion

Sexual function progressively declines in ageing men2. When the effects of ageing were correlated with the mean score in each variable, advanced ageing coincided with significantly lowest scores for all variables. Relationship of rural dwellers, low-income status and non-employed with erectile dysfunction had been observed in various study[3,4,5].

In addressing ED problems in Malaysia, fully understanding the IIEF-5 scoring pattern among Malaysian in community-based is essential. Findings of our study showed a risk stratification models of erectile dysfunction. A holistic strategy from policy maker directed towards targeted populations and healthcare services provider are important in promoting a healthy lifestyle and indirectly improving their sexual function.

Table 1: Mean score of IIEF-5 by symptoms

	Mean	SD	Minimum	Maximum
Overall	18.16	4.12	5	25
Erection confidence	3.48	0.85	1	5
Erection firmness	3.39	1.09	1	5
Maintenance frequency	3.38	1.14	1	5
Maintenance ability	4.27	1.05	1	5
Intercourse satisfaction	3.63	1.11	1	5

Table 2: Mean score of IIEF-5 by socio-demographic profile

Sociodemography	Erection confidence	P-Value	Erection firmness	P-Value	Maintenance frequency	P-Value	Maintenance ability	P-Value	Intercourse satisfaction	P-Value	Overall	P-Value
AgeGroup[a]												
18-29	3.71 ± 0.87		3.33 ± 1.27*		3.21 ± 1.37*		4.15 ± 1.17*		3.41 ± 1.37*		17.80 ± 4.85*	
30-59	3.59 ± 0.78	<0.001	3.54 ± 1.03*	<0.001	3.54 ± 1.07*	<0.001	4.42 ± 0.93*	<0.001	3.81 ± 1.00*	<0.001	18.91 ± 3.65*	<0.001
60 and above	2.90 ± 0.87*		2.87 ± 0.95*		2.89 ± 0.99*		3.75 ± 1.20*		3.12 ± 1.09*		15.52 ± 4.05*	
Strata[b]*												
Urban	3.53 ± 0.83	0.002	3.44 ± 1.09	0.003	3.44 ± 1.13	<0.001	4.31 ± 1.00	0.009	3.70 ± 1.09	<0.001	18.42 ± 4.04	<0.001
Rural	3.42 ± 0.89		3.31 ± 1.08		3.26 ± 1.15		4.19 ± 1.11		3.52 ± 1.16		17.70 ± 4.24	
Marital Status[a]												
Divorcee	3.25 ± 0.88		3.15 ± 1.01		3.09 ± 1.13		3.91 ± 1.39		3.32 ± 1.17*		16.72 ± 4.46	
Single	3.55 ± 0.90	0.068	2.95 ± 1.33*	<0.001	2.75 ± 1.42*	<0.001	3.89 ± 1.28	<0.001	2.93 ± 1.45*	<0.001	16.06 ± 5.10	<0.001
Married	3.49 ± 0.85		3.45 ± 1.05*		3.46 ± 1.08*		4.32 ± 1.00*		3.72 ± 1.04*		18.44 ± 3.91*	
Ethnicity[a]												
Malay	3.53 ± 0.93		3.43 ± 1.09		3.40 ± 1.14		4.30 ± 1.01		3.66 ± 1.11		18.31 ± 4.05	
Chinese	3.42 ± 0.87		3.35 ± 1.15		3.45 ± 1.11		4.31 ± 1.02		3.59 ± 1.09		18.11 ± 4.24	
Indian	3.45 ± 0.82	0.066	3.31 ± 1.09	0.188	3.24 ± 1.23	0.096	4.10 ± 1.13	0.12	3.52 ± 1.23	0.31	17.61 ± 4.44	0.31
Other Bumiputeras	3.39 ± 0.83		3.27 ± 1.06		3.23 ± 1.07		4.11 ± 1.15		3.53 ± 1.09		17.53 ± 4.10	
Others	3.48 ± 0.93		3.43 ± 1.09		3.40 ± 1.19		4.17 ± 1.19		3.69 ± 1.12		18.17 ± 4.47	
Education[a]												
No formal	3.13 ± 0.89		2.89 ± 1.09		2.84 ± 1.17		3.69 ± 1.20		3.13 ± 1.25		15.69 ± 4.94	
Primary	3.15 ± 0.94	<0.001	3.09 ± 1.04	<0.001	3.10 ± 1.07	<0.001	4.01 ± 1.16	<0.001	3.34 ± 1.12	<0.001	16.69 ± 4.26	<0.001
Secondary*	3.49 ± 0.81		3.34 ± 1.06		3.32 ± 1.13		4.27 ± 1.05		3.61 ± 1.11		18.02 ± 3.96	
Tertiary*	3.73 ± 0.79		3.73 ± 1.08		3.70 ± 1.12		4.46 ± 0.90		3.89 ± 1.06		19.51 ± 3.87	
Occupation[b]*												
Employed	3.58 ± 0.83	<0.001	3.49 ± 1.07	<0.001	3.48 ± 1.12	<0.001	4.35 ± 0.99	<0.001	3.73 ± 1.08	<0.001	18.63 ± 3.96	<0.001
Non-employed	3.06 ± 0.84		2.90 ± 1.03		2.88 ± 1.13		3.85 ± 1.22		3.15 ± 1.20		15.83 ± 4.18	
Household Income[a]												
≤RM1000*	3.19 ± 0.88		3.07 ± 1.12		3.09 ± 1.17		4.03 ± 1.10		3.28 ± 1.07		16.66 ± 4.21	
RM1001-RM3999*	3.44 ± 0.87	<0.001	3.33 ± 1.05	<0.001	3.27 ± 1.13	<0.001	4.21 ± 1.10	<0.001	3.59 ± 1.11	<0.001	17.83 ± 4.07	<0.001
RM4000-RM7999*	3.57 ± 0.80		3.48 ± 1.10		3.50 ± 1.11		4.39 ± 0.93		3.72 ± 1.12		18.66 ± 3.96	
≥RM8000*	3.73 ± 0.77		3.67 ± 1.10		3.68 ± 1.10		4.43 ± 0.94		3.86 ± 1.05		19.37 ± 3.90	
B40 Status[b]												
B40	3.46 ± 0.86		3.35 ± 1.07		3.32 ± 1.13		4.25 ± 1.05*		3.61 ± 1.10*		17.99 ± 4.06*	
M40	3.53 ± 0.86	0.001	3.45 ± 1.10	<0.001	3.45 ± 1.12	<0.001	4.29 ± 1.02	0.033	3.67 ± 1.12	0.006	18.38 ± 4.08*	<0.001
T20	3.68 ± 0.72		3.67 ± 1.10*		3.66 ± 1.14*		4.43 ± 0.92		3.85 ± 1.10		19.29 ± 4.03*	

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