International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 08, 2020
ISSN: 1475-7192

Relationship between Sexual Satisfaction and Perceived Health Status among Married Older Adults

[1]Hazwan Mat Din, [2]Halimatus Sakdiah Minhat, [3]Rahimah Ibrahim,
[4]Siti Aisyah Nor Akahbar

Abstract--*Study on impact of sexuality on perceived health status is lacking especially among older adults in Malaysia. This aim of this study was to examine the association between sexual satisfaction and perceived health status among married older adults in Malaysia. Data of this study was obtained through a cross-sectional study conducted at the end of 2014. A three-step hierarchical logistic regression using SPSS was conducted to assess the association between sexual satisfaction and perceived health. The findings from the analysis showed that sexual satisfaction in form of physical contact was significantly associated with perceived health status after controlling for sociodemographic variables, health variables and emotional sexual satisfaction. Further analysis showed that those having physical contact satisfaction had more than 12 times higher to have good perceived health status compared to those not having physical contact satisfaction (AOR = 11.14; 95% CI: 1.73, 71.87). The findings from this study highlighted the important of having satisfaction from sexual activity with partner to improve health in later life.*

Key words--*Sexual Satisfaction; Physical Contact; Emotional; Perceive Health; Self-rated Health; Older Adult; Elderly*

I. INTRODUCTION

Malaysia is experiencing rapid population aging. As fertility is declining and increasing life expectancy, older adult population will continue to increase for the next decade. The proportion of older adults with age more than 60 years old is projected to be almost 15% of the total population in 2030. In line with this situation, adequate focus should be given to topics for improving health of older adults. Sexuality is defined as an essential part of being human being and sexual satisfaction associates with health. However, the evidence and information on how sexuality affect health in older ages is still limited.

Many of studies on sexuality consider satisfaction arise from experiencing orgasm relating to sexual intercourse. However, sexual satisfaction is not only limited to coital sexual behaviours but including non-coital sexual behaviours such as fondling and tenderness. Sexual satisfaction is defined as affection resulting from individual's evaluation of sexual relationship [5]. Study among older adults aged 65-74 showed that 54% of male and 49% of women

[1]*Research officer, Malaysian Research Institute on Ageing, University Putra Malaysia, Email: hazwan_m@upm.edu.my*
[2]*Associate professor, Department of Community Health, Faculty of Medicine and Health Sciences, University Putra Malaysia*
[3]*Associate Professor, Department of Human Development and Family Studies, Faculty of Human Ecology, University Putra Malaysia*
[4]*Science officer, Research officer, Malaysian Research Institute on Ageing, University Putra Malaysia*

DOI: 10.37200/IJPR/V24I8/PR280021
Received: 19 Jan 2020 | Revised: 06 Feb 2020 | Accepted: 12 Mar 2020

reported having sexual satisfaction. Another study among older adults in community in United States reported 41% of men and 36% of women considered their sex lives "very satisfied".

A handful of studies examined the association between sexual satisfaction and health among older adults. Study among men and women older adults in United Kingdom reported that sexual satisfaction were significantly reduce among poor perceived health status compared to respondents who reported good health. Study among 3005 nationally representative community-dwelling older adult in United States reported that older adults having pleasurable sex were shown to increase odds ratio more than two to have better health compared to those not having pleasurable sex.

Even though sexual satisfaction has positive impact on the health of older adults, this aspect is still under-research, particularly in Malaysia. Thus, the objective of this study was to examine the association between sexual satisfaction and perceived health status among married Malay older adults living in community in Malaysia.

II. METHODS

Respondents

A total of 109 married older adults living in community, were recruited through a cross-sectional study conducted in Kuala Lumpur, Malaysia from end 2014 to early 2015. Twelve community associations were selected for the data collection. No sampling method was used as all available respondents were recruited in this study. This study include respondent from married Malay older adults age 60 and above living in community. The respondents also must be able response to question asked orally. The data were collected by face-to-face interview by trained enumerator. The questions consisted of four sections; sociodemographic, chronic medical conditions, depressive symptoms and sexual activity. This study ethical approval was obtained from Ethics Committee for Research Involving Human Subjects Universiti Putra Malaysia (JKEUPM).

Sample size calculation

This study sample size was calculated via two proportions formula suggested by Daniel and Cross [9] for association study. Proportion of good perceived health status ($P_0 = 0.66$) among older adults population with sexual satisfaction was obtained from Field, Mercer[3] while proportion of good perceived health status among older adults without sexual satisfaction was meticulously estimated based on expert and literature review ($P_1 = 0.40$). *P*-value was set at 0.05 while power of the study was set at 80.0%. The require sample size was 114 and with consideration of 10% non-response rate, the sample size inflated to 125 respondents.

Measurement tool

Sociodemographic variables that were included as potential cofounders in the analysis were age, gender, education, household income and smoking status. Education was obtained based on number of years of formal education received by the respondents. Household income was obtained based on amount reported by the respondents, was then categorized into less than RM1000, RM1001 to RM2500 and more than RM2500. For smoking status,

DOI: 10.37200/IJPR/V24I8/PR280021
Received: 19 Jan 2020 | Revised: 06 Feb 2020 | Accepted: 12 Mar 2020

respondents were asked whether they have stopped smoking, or still smoking. Based on the response, smoking status was categorized into three categories; never smoked, stopped smoking and still smoking.

Chronic medical conditions (CMCs) were measured via a health problems checklist. The checklist contained whether the respondents have these diseases: hypertension, diabetes, heart disease, cancer, asthma, cataract, gastric, kidney disease, arthritis, stroke, tuberculosis, incontinence, constipation, hearing problems and vision problems. The conditions must be diagnosed by medical practitioner during previous 12 months. The CMCs were treated as numerical variable, as numbers of chronic medical conditions present.

Malay version geriatric depression scale (GDS) was used to assessed respondent's depressive symptoms. The instrument consisted of 15 items. GDS was developed specifically for older adults. Study have reported GDS to have an excellent construct validity and Cronbach's alpha of 0.84[10]. Based on total score, value of 5 or greater is suggestion of depressive symptoms.

Sexual satisfaction was assessed in form of physical and emotional satisfaction. Other than sexual intercourse, sexual contacts such as kissing and holding hand were consider as sexual physical contact. To measure physical sexual satisfaction, respondent was asked to answer to an item; *Do you derive satisfaction from your physical contact?* The item was rated based on *yes* and *no* response. To measure emotional sexual satisfaction, respondents were asked to response to an item; *In general, how emotionally satisfying do you find your relationship with your partner*? The item was rated based on 5-point Likert scale. The scale range was from *not at all* [1] to *extremely satisfied* [5]. Based on the responses, emotional satisfaction was categorized into two categories, *yes* and *no.* Respondents were categorized as having emotional satisfaction if they score four and above while for respondents that scored less than four were considered having unsatisfied emotional satisfaction.

Single item measurement was used to asses respondent's perceived health status; *How do you rate your overall health?* The item was rated based on 5-point Likert scale range from *very bad (1)* to *very good (5)*. Based on responses, score of four and above was considered having good perceived health status while score of less than four were considered as having fair perceived health status.

III. RESULTS

A total of 109 married community-dwelling Malay older adults were recruited with average age of the respondents was 63.23years old. Male respondents contribute to 64.2% of the respondents recruited. Respondents in this study had average of 7.07 years of formal education. 53.2% of the respondents had household income between RM1001 to RM2500 and 50.5% of them were never smoked. Table 1 summarizes the study variables' descriptive statistics by their perceived health category.

DOI: 10.37200/IJPR/V24I8/PR280021
Received: 19 Jan 2020 | Revised: 06 Feb 2020 | Accepted: 12 Mar 2020

Table 1: Descriptive statistics of respondents (n = 109)

Variable	Total, n (%)	Perceived health, n (%)		P-value
		Fair	Good	
Age (years), mean (SD)	63.23 (4.21)	64.73 (5.84)	62.46 (2.81)	0.030[c]
Gender				
Male	70 (64.2)	29 (78.4)	41 (56.9)	0.027[a]
Female	39 (35.8)	8 (21.6)	31 (43.1)	
Education (years), mean (SD)	7.07 (6.00)	6.76 (2.91)	7.24 (2.68)	0.392[c]
Household income				
Less RM 1000	33 (30.3)	18 (48.6)	15 (20.8)	0.012[a]
RM1001 – RM2500	58 (53.2)	14 (37.8)	44 (61.1)	
More than RM 2500	18 (16.5)	5 (13.5)	13 (18.1)	
Smoking status				
Never smoked	55 (50.5)	16 (43.2)	39 (54.2)	0.542[b]
Stopped smoking	24 (22.0)	9 (24.3)	15 (20.8)	
Currently smoking	30 (27.5)	12 (32.4)	18 (25.0)	
CMC (n), mean (SD)	1.92 (1.33)	2.87 (1.40)	1.44 (1.01)	<0.001[c]
Depressive symptoms				
No	87 (79.8)	20 (54.1)	67 (93.1)	<0.001[a]
Yes	22 (20.2)	17 (45.9)	5 (6.9)	
Physical contact satisfaction				
No	29 (26.6)	21 (56.8)	8 (11.1)	<0.001[a]
Yes	80 (73.4)	16 (43.2)	64 (88.9)	
Emotional sexual satisfaction				
No	44 (40.4)	19 (51.4)	25 (34.7)	0.094[a]
Yes	65 (59.6)	18 (49.6)	47 (65.3)	

[a]Chi-square test, [b]Fisher's exact test, [c]Independent t-test

Results of bivariate associations between study variables and dependent variable in Table 1 showed significant association between perceived health status and age (t = 2.74, $P = 0.007$), gender ($\chi^2 = 4.89$, $P = 0.027$), household income ($\chi^2 = 8.66$, $P = 0.011$), chronic medical conditions (t = 6.09, $P < 0.001$), depressive symptom ($\chi^2 = 23.08$, $P < 0.001$) and physical contact satisfaction ($\chi^2 = 26.08$, $P < 0.001$).

Hierarchical Logistic Regression

The first model included sociodemographic variable was significant, $\chi^2(df) = 22.93$ (7), $P = 0.002$, with model Nigelkerke R^2 of 26.0%. The model revealed gender and household income showed significant association with with perceived health status. Addition of health variables showed the model was highly significant, $\chi^2(df) = 69.20$ (9),

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Received: 19 Jan 2020 | Revised: 06 Feb 2020 | Accepted: 12 Mar 2020

$P < 0.001$, with improvement of 65.2% Nigelkerke R^2. The model revealed health variables, which were depressive symptom and chronic medical conditions were significantly associated with perceived health status. The third model included the sexual satisfaction (Physical contact and emotional), was highly significant, χ^2(df) = 77.63 (11), $P < 0.001$, with improvement of 70.0% Nigelkerke R^2. The model demonstrated a good fit based non-significant of Hosmer-Lemeshow test. As expected, the model revealed significant association between physical contact satisfaction and perceived health status after controlling for other confounders. On the other hand, emotional satisfaction was found not significant in the model. Health variables (depressive symptom and chronic medical conditions) and household income were significant confounders in the model. Respondents having satisfied physical contact were 12.8 times higher to have good perceived health status compared to those with unsatisfied physical contact (Adjusted OR = 11.14; 95% CI: 1.73, 71.87).

Table 2: Results of hierarchical logistics regression

Variable	**First model**		**Second model**		**Third model**	
	AOR	95% CI	AOR	95% CI	AOR	95% CI
Age	0.87	0.75, 1.01	0.89	0.70, 1.16	0.84	0.64, 1.11
Gender (ref: Male)	6.24[b]	1.43, 27.26	5.09	0.52, 50.02	14.04	0.93, 211.31
Education	1.07	0.89, 1.29	1.07	0.83, 1.40	1.01	0.77, 1.32
Household income (Ref: <RM1000)						
RM1001 - 2500	5.12[b]	1.75, 14.94	12.26[b]	2.52, 59.57	12.23[b]	2.33, 64.03
> RM2500	3.44	0.87, 13.57	10.09[b]	1.30, 78.18	8.86[b]	1.13, 69.12
Smoking status (Ref: Never smoked)						
Stopped smoking	2.84	0.68, 11.82	1.59	0.21, 11.9	4.39	0.47, 40.94
Currently smoking	2.45	0.60, 9.99	0.31	0.04, 2.67	0.50	0.05, 4.82
Chronic medical condition			0.25[a]	0.11, 0.56	0.42[b]	0.19, 0.92
Depressive symptoms (Ref: No)			0.04[a]	0.01, 0.24	0.05[b]	0.01, 0.39
Physical contact satisfaction (Ref: No)					12.82[b]	1.95, 84.12
Emotional sexual satisfaction (Ref: No)					0.94	0.20, 4.34
χ^2(df)	22.93 (7)		69.20 (9)		77.63 (11)	
P-value	0.002		<0.001		<0.001	
Nigerlkerke R^2	0.26		0.65		0.70	

[a]$P<0.001$, [b]$P<0.05$

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IV. DISCUSSION

This study revealed the prevalence of married older adults having physical contact satisfaction was 73.4%. More than half of older (59.6%) adults in this study also reported having satisfied emotional sexual satisfaction. This findings were also similar in other studies [3, 6, 12-14]. This study also provided evidence of both physical contact and emotional sexual satisfaction were higher in respondents with good perceived health status compared to respondents with fair perceived health status.

The objective of this study was to investigate the relationship sexual satisfaction on perceived health status among married older adults. Both sociodemographic and health variables were controlled. This study findings demonstrated physical contact satisfaction improved older adults' perceived health status, similar with other findings.

There are several ways that sexual satisfaction associated with perceived health status. Biologically, sexual satisfaction was commonly associated with sexual dysfunction among older adults. Study showed that sexual dysfunction and other sexual problems cause poor health and reported that sexuality associated with health at older age. Moreover, decreasing of testosterone level in old age reduced sexual desire and sexual activity, thus contribute to decreased perceived health among older adults. In form of psychological view, sexual satisfaction altogether with sexual activity were significantly associated with mental health among older adults [14]. Additionally, Laumann, Gagnon[18] reported that happiness was significantly influence by both physical and emotional pleasure in addiction of sexual satisfaction.

V. CONCLUSION

In conclusion, this study findings revealed that having sexual satisfaction in form of physical contacts may contribute to good perceived health status, which can improve life satisfaction and happiness of married older adults. Among the limitations of this study is the cross-sectional design, which might limit the causal relationship between sexual satisfaction and perceived health status. Another limitation is the use of single item measurement of perceived health status and sexual satisfaction. However, it is important to highlight that this method measurement of perceived health status is a common use in social science and epidemiology studies and has been validated across the field. The single item measurement for sexual satisfaction also has been used in recent studies. The minimum sample size required in this study was 114. However, the respondents recruited was 109, less than minimum required. The post-hoc test for the sample size showed that the current power of study was still acceptable (77.0%). Thus, the sample size in this study was valid. Despite the limitations, findings from this study highlight the need of staying active and satisfied in term of sexual life to improve perceived health in later life. The main contribution of this study is one of few studies that have attempted to reveal relationship of sexual satisfaction and perceived health status of married older adults.

DOI: 10.37200/IJPR/V24I8/PR280021
Received: 19 Jan 2020 | Revised: 06 Feb 2020 | Accepted: 12 Mar 2020

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DOI: 10.37200/IJPR/V24I8/PR280021
Received: 19 Jan 2020 | Revised: 06 Feb 2020 | Accepted: 12 Mar 2020

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DOI: 10.37200/IJPR/V24I8/PR280021
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Received: 19 Jan 2020 | Revised: 06 Feb 2020 | Accepted: 12 Mar 2020