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KEMENTERIAN KESIHATAN MALAYSIA

GENDER DIFFERENCES IN FACTORS ASSOCIATED WITH DEPRESSION SYMPTOMS AMONG OLDER PEOPLE IN MALAYSIA:A NATIONWIDE SURVEY

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1 Introduction

- Depression is a mood disorder characterised by symptoms that adversely affects one's psychosocial well being and daily functioning.
- The World Health Organization(WHO) reported that depression occurs in 7% of the elderly population.
- Gender disparity between women and men of older person was observed in the developed countries, however this topic was understudied in Malaysia.
- Therefore, the objective of this study is to determine factors associated with depressive symptoms in women and men of older people in Malaysia.

2 Materials and Methods

- A nationwide survey focusing on older person was conducted in 2018. It was a cross-sectional study and used stratified random cluster sampling.
- A face to face interview was conducted by a trained data collectors using a validated questionnaire after obtaining the written consent from the respondents.
- This study focused on older persons by the age definition of 60 years and above as it was the local definition for older persons in Malaysia.
- The Malay Validated Geriatric Depression Scale questionnaire (M-GDS-14) was used to measure depressive symptoms.
- Data was analysed via a statistical software to tabulate results on descriptive, bivariate and multivariable logistic regression.
- The methodology of the study applied a survey design to generate the population estimate, therefore a complex sample data analysis was utilized. in the table of results. The odds ratio can be further interpreted as having a small (1.5), moderate (The final results were interpreted using an odds ratio value of more than one and p-value less than 0.05 indicating a significant association.

3 Results

- The overall response rate in the National Health and Morbidity Survey 2018 was 86.4%. The study population consisted of 1872 older men and 2105 older women.
- The prevalence of depressive symptomatology showed a statistically significant difference by gender for chronic diseases, ethnicity, marital status, living status, educational level, occupational status and total individual income (See Table 2).
- The prevalence of depression symptoms among females was 11.7% (95% CI: 9.4, 14.5) and males was 10.7% (95% CI: 8.9, 13.0).
- Gender differences were observed in the associated factors for depression symptoms among older persons in Malaysia in terms of the present of chronic diseases. In females, those with hypertension (AOR: 1.75; 95% CI: 1.11, 2.75) and hypercholesterolaemia (AOR: 1.52; 95% CI: 1.04, 2.21)
- The sociodemographic factors such as individual income less than RM1000 (AOR: 3.19; 95% CI: 1.11, 9.13), unemployed (AOR: 3.08; 95% CI: 1.78, 5.33 and being a housewife (AOR: 2.39, 95% CI: 1.14, 5.00) were associated with depressions symptoms. In males, depression symptoms were associated with those individual income less than RM1000 (AOR: 2.42; 95% CI: 1.03, 5.69) and currently not married (AOR: 1.95; 95% CI: 1.10, 3.47).

Table 1: Prevalence of depressive symptomatology across the associated factors by gender.

Variables	Male			Female			P-value
	%	95% CI		%	95% CI		
		Lower	Upper		Lower	Upper	
Clinically depressive	10.7	8.9	13.0	11.7	9.4	14.5	0.400
Diabetes Mellitus							
Yes	13.9	10.5	18.3	11.8	8.5	16.1	<0.001
No	9.6	7.6	12.1	11.7	8.8	15.3	
Hypercholesterolemia							
Yes	12.4	9.6	16.0	14.6	11.0	19.3	<0.001
No	9.7	7.5	12.4	9.2	7.1	11.8	
Hypertension							
Yes	13.3	10.3	16.9	14.9	11.3	19.3	<0.001
No	8.5	6.5	10.9	7.8	5.7	10.5	
Age group							
60-69 years	8.5	6.4	11.1	9.0	6.5	12.4	0.416
70 and above	15.5	12.4	19.3	17.1	12.6	22.7	
Strata							
Urban	9.2	7.1	12.0	10.9	7.9	14.7	0.305
Rural	15.0	12.0	18.6	13.9	11.5	16.7	
Ethnicity							
Malay	10.8	8.5	13.7	13.2	10.0	17.3	0.018
Non-Malay	10.6	7.8	14.3	9.4	6.6	13.1	
Marital status							
Married	9.1	7.3	11.4	7.8	6.1	9.9	<0.001
Other than married	21.2	15.4	28.5	15.8	12.1	20.5	
Living status							
Living alone	19.0	10.2	32.7	16.6	10.8	24.6	<0.001
Not living alone	10.4	8.5	12.6	11.3	8.8	14.3	
Educational level							
Primary and lower	14.5	12.1	17.4	14.7	12.0	17.8	<0.001
Secondary to tertiary	7.2	5.1	10.1	6.0	3.0	11.7	
Occupational status							
Employed	7.5	5.4	10.3	4.4	2.6	7.3	<0.001
Retiree	8.7	6.5	11.6	4.6	2.1	9.9	
Homemaker				11.0	7.7	15.6	
Unemployed	17.8	13.7	22.9	17.6	13.3	23.0	
Total individual income (RM)							
< RM 1000	16.9	13.7	20.6	13.3	10.6	16.5	<0.001
RM1000 - 1999	7.9	5.7	11.0	11.8	5.7	22.8	
RM2000+	5.0	2.6	9.2	2.2	0.9	5.5	

4 Discussion

Gender disparity in the prevalence and associated factors of many disease including depressive symptomatology were found to exist in various phases of life such as adolescence, adulthood and in older persons (5,8). A meta-analysis reported that female gender was a predictor for depression among older people (19,20).

However, this study found that the prevalence was statistically not significant by gender because older women and older men may have depressive symptoms due to difference factors. Even though the prevalence was much lower from the global prevalence, one should be aware of the mental health stigma in Malaysia.

The association of the presence of diabetes mellitus, hypertension and hypercholesterolaemia were compared via the effect size of the adjusted odds ratio value to interpret the size of the contribution of each tested variable. Older persons with depressive symptoms warranted further investigation to confirm the diagnosis and plan for treatment. In this study, the relationship of depressive symptomatology with sociodemographic factors, diabetes, hypertension, and hypercholesterolemia was investigated in both older men and older women. This study found that the association of depressive symptomatology with hypertension and hyperlipidaemia was seen in older women only. This was a population-based study which has a national representative sample and can be generalised to older persons in Malaysia. It also utilized the standard questionnaire to measure geriatric depressive symptomatology which enabled international comparison in terms of prevalence. This study used a cross-sectional study design and therefore lacks a causal relationship between the dependent and independents variables.

5 Conclusion

In conclusion, this study reveals notable disparities in the factors associated with depressive symptoms among older women and men in Malaysia. Specifically, older women with hypertension or hypercholesterolemia exhibit a significant association with depressive symptomatology, unlike their male counterparts. To address these findings, it is imperative to develop gender-specific screening programs, enhance mental health support for older women with these health conditions, conduct further research on gender-specific factors, and launch public health campaigns to raise awareness about the increased risk of depressive symptoms among older women with hypertension or hypercholesterolemia

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