

The Prevalence of Depression Among the Elderly in Sepang, Selangor

M S Sherina, MMed, L Rampal, PhD, A Mustaqim, BSc

Department of Community Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, Selangor

Summary

Objective: To determine the prevalence of depression among the elderly and to identify its associated factors.

Methods: A cross sectional study design was used. Stratified proportionate cluster sampling method was used to select the respondents. A 30 item Geriatric Depression Scale questionnaire was used as a screening instrument.

Results: 7.6% of the elderly were found to have depression. Only employment status was found to be significantly associated with depression. **Discussion:** The prevalence of depression in the elderly was 7.6%. Primary Care providers need to be vigilant when treating elderly patients as depression is commonly found in this age group .

Key Words: Prevalence, Depression, Elderly, Community, Malaysia

Introduction

Elderly population aged 60 years and above in the world will reach 1.2 billion by the year 2025, the majority of whom will be in developing countries¹. Depression is an affective illness characterized by depressive symptoms such as disturbance in mood, cognition and behaviour². Community based studies show a wide range of prevalence of depression in the elderly, ranging from 4.8% in Spain to as high as 35% in Turkey and Hong Kong^{3,4,5}.

Even though depression is the commonest psychiatric disorder in the elderly, it is commonly misdiagnosed and under treated. This could be due to the misconception that depression is part of aging rather than a treatable condition. Depression decreases an individual's quality of life and increases dependence on others. If depression is left untreated, there will be significant clinical and social implications in the lives of the elderly⁶.

In the year 1997, the Malaysian population aged 60 years and above was proximated to be 1 million. In the year 2000, this particular group has increased to 1.5 million and will further increase to 4 million by the year 2025.¹ A nation is said to be aging when 10% or more of its population is aged 60 years and above.⁷ By the year 2020, the elderly population is expected to make up 9.8% of the overall Malaysian population.⁸ Therefore in anticipation of Malaysia heading towards an aging nation, primary care providers need to be alert and informed of the special needs of the elderly⁹.

Diagnosing depression in the elderly is often difficult. Presence of cognitive impairment as well as reluctance and denial by the elderly and their family members may make eliciting history difficult and complicate the doctor's assessment. Manifestations of depression in the elderly are also different from depression in other periods of adulthood. The elderly often present with non-specific or somatic symptoms rather than the typical symptoms of depression¹⁰. In Malaysia, two local studies done at primary health care clinics showed a high

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Corresponding Author: Sherina Mohd Sidik, Department of Community Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, Selangor

prevalence of depression among the elderly, ranging from 14% to 18%^{11,12}.

There are many screening instruments available to detect depression among the elderly. One of the most widely used instrument is the Geriatric Depression Scale. The Geriatric Depression Scale (GDS) (30-item) was chosen as the study instrument in this study as it has been shown to have high sensitivity and specificity. Koenig et al¹³ reported that the GDS had a sensitivity of 92% and a specificity of 89%. It has also been proven to be a valid instrument and is widely used for evaluating depression in the elderly^{13,14}.

Materials and Methods

A cross sectional study was conducted in Mukim Sepang, Sepang District, Malaysia. It covers an area of 20,441 hectares. Five out of nine kampungs in Mukim Sepang were selected using table of random numbers. All houses within the 5 selected kampungs were included in the study. Each of these kampungs was considered as a cluster. All elderly residents aged 60 years old and above in the selected kampungs were included as respondents. Data was collected using the Geriatric Depression Scale (GDS) questionnaire. The GDS was pre-tested in another locality which was not included in the study area. The socio demographic factors included in this study were age, gender, ethnicity, marital status, living arrangement, occupation and family income. The questions consisted of 2 parts. Part one was based on demographic data and Part two consisted of the Geriatric Depression Scale¹⁴.

The Geriatric Depression Scale consisting of 30 questions was used as the study instrument. The total scores range from 0 to 30. The respondents' answers were scored by summing up the positive and negative responses. Based on the GDS guidelines, a predetermined cut off score of more than 10 was used to identify depression. The validated Bahasa Malaysia version of the GDS was used in this study¹². Information was collected by personal interview, conducted by one of the authors. The interviewer had undergone a Research Methodology course which included interviewing techniques.

Data was analysed using the Statistical Package for Social Sciences version 10.0. The level of significance used for the above data was $p < 0.05$. Chi-square test and Fisher's exact test was used to determine the relationship between depression and gender, ethnicity,

marital status, living arrangement, occupation and family income.

Results

Out of the 263 elderly residents, 223 agreed to participate giving a response rate of 84.8%.

Socio-demographic profile

The mean age was 69.7 years with a SD of 6.8 years. Age ranged from 60-99 years. Median age was 68 years. 55.2% of the respondents were females. Further analysis showed that there were more females than males in all the elderly age-groups of 60-69 years, 70-79 years, 80-89 years, with the highest ratio in the 90 and above age group (female: male = 4:1). Another important finding was that among the respondents who were widowed, most were females (84.5%) compared to males (15.5%). Among the female respondents 57.7% were widowed and only 39.8% were still married. However among the male respondents, 85.0% were still married and only 13% were widowed.

In this study, majority of the respondents were Malays (53.8%), married (60.1%), living with family (91.5%), were not working (83.4%) and had a monthly family income of less than RM 500.00 (68.2%) (Table I).

Geriatric Depression Scale (GDS) Score

The mean GDS score was 4.34 (SD 3.76 and the median score was 3.00. The scores ranged from 0 to 27. Based on the GDS scores, 17 of the respondents were found to have depression. Therefore, the prevalence of depression among the elderly in Mukim Sepang was 7.6%.

The association between depression and socio demographic factors

Table II shows the association between depression and socio demographic factors. In this study, depression was more common among the respondents who were aged 70 years old and above (8.9%) compared to those aged 60 to 69 years old (6.6%). Depression was also more common among females (8.9%) compared to males (6.0%), the unmarried (11.2%) compared to the married (5.2%), the elderly who lived alone (15.8%) compared to those who lived with family (6.9%), the unemployed (9.1%) compared to the employed (0%) and those with monthly family income less than RM 300 (10.7%)

compared with those with family income of RM 300 and above (5.8%). The prevalence of depression was also higher among Indians (11.1%) compared to Malays

(6.7%) and Chinese (7.7%). In this study, only unemployment was found to be significantly associated with depression among the elderly ($p=0.04$).

Table I: Sociodemographic profile of the elderly respondents in Mukim Sepang (n=223)

Socio demographic profile	Number	Percentage (%)
<u>Gender</u>		
Females	123	55.2
Males	100	44.8
<u>Race</u>		
Malays	120	53.8
Chinese	52	23.3
Indians	45	20.2
Orang Asli	6	2.7
<u>Marital Status</u>		
Married	134	60.1
Single /Widowed/Divorced	89	39.9
<u>Living Arrangement</u>		
Living alone	19	8.5
Living with family	204	91.5
<u>Occupation</u>		
Not working	186	83.4
Working	37	16.6
<u>Family Income</u>		
Less than RM300	84	37.7
RM300 - RM500	68	30.5
Above RM500	71	31.8

Table II: Association between depression and sociodemographic factors among the elderly respondents in Mukim Sepang (n=223)

Socio demographic Factors	Depression (n=17)	No Depression (n=206)	Prevalence (%)
<u>Age</u>			
60-69 years old	8	114	6.6
70 years old and above	9	92	8.9
<u>Gender</u>			
Female	11	112	8.9
Male	6	94	6.0
<u>Race</u>			
Malays	8	112	6.7
Chinese	5	40	11.1
Indians	4	48	7.7
Orang Asli	0	6	0.0
<u>Marital Status</u>			
Married	7	127	5.2
Single /Widowed/Divorced	10	79	11.2
<u>Living Arrangement</u>			
Living alone	3	16	15.8
Living with family	14	190	6.9
<u>Occupation</u>			
Not working	17	169	*9.1
Working	0	37	0.0
<u>Family Income</u>			
Less than RM300	9	75	10.7
RM300 and above	8	131	5.8

*significant ($p < 0.05$)

Discussion

Studies have shown that depression affects 8% to 20% of elderly in the community¹⁵. The prevalence of depression among the elderly in the community in this study was 7.6%. Two local studies on depression among the elderly carried out in primary health care clinics showed higher prevalence of 14% and 18%^{11,12}. The higher prevalence of depression in these studies is probably due to the higher underlying morbidity of elderly attending primary health care clinics.

In this study, the prevalence of depression was found to be significantly higher among the elderly respondents who were unemployed. A study by Ramachandran on socio-cultural factors in late onset depression in India also found that there was an increased rate of depression among the elderly who were unemployed. In his study, Ramachandran explained that

unemployment was associated with low family income which was associated with depression¹⁶. In Malaysia the elderly are generally less well off financially compared to the rest of the adult population due to their inability to earn. The elderly depend on their pension, savings, investments or even money from their children to meet their financial needs, which include seeking health care¹⁷. Unemployment gives rise to financial problems which cause the elderly to be dependent on others for financial support¹⁶. This study also found that depression occurred more commonly among the elderly with low family income, however this finding was not statistically significant.

There was no significant difference in the prevalence of depression for different gender, marital status and living arrangement in this study. In their study on depression among elderly in India, Ramachandran et al¹⁶ found

that the prevalence of depression was significantly higher among the females, widowed and those who were living alone. However, the findings of their study could have been influenced by the socio-cultural factors in India.

Although depression was found more frequently among the Indians compared to other races in this study, this was not statistically significant. This could be due to the small representation of Indians in our study.

Conclusion

In this study the prevalence of depression among the elderly respondents was 7.6%. The prevalence of depression was significantly higher among the elderly who were unemployed. However, the other socio demographic factors were not significantly associated with depression. There is a need for a larger study to be carried out to confirm these findings as this study may not have adequate power to detect the depression contributed by these demographic variables in a Malaysian rural community.

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