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Undiagnosed depression among older adults living in a semi urban community in Southern Sri Lanka

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ABSTRACT

Introduction: Depression is common in late life. Sri Lankan studies on depression in community living elderly are scarce. A sample of community living older people was assessed for presence of depressive symptoms.

Methods: Randomly selected 300 people aged above 50 years from Bope-Poddala MOH area who were not diagnosed with neurological illness, major psychiatric illness and not having severe visual or hearing impairment were screened using Geriatric Depression Scale-Sinhala version (GDS-S). Medical records were examined and diagnoses of non-communicable diseases were recorded;

Results: The majority were females (n=183, 61%). The mean age was 62 (SD=8) years. Twenty nine percent of subjects were still working. Thirty six percent (males - 40% and females - 36%) had sought medical treatment for non-communicable diseases.

Twenty five participants (10% of males , 7.% of females) met criteria for depression (GDS-S score >= 6). Nine percent of those who were aged 50-64 years and 7.4% of those who were older than 64 years were found to have depressive symptoms.

Conclusions: One in 12 older adult showing depressive symptoms signals the need of professional attention to the mental health well-being of older adults. As one in three of these people already attend health care services for their medical problems, these services can provide assessment of depression to make appropriate referrals/ interventions.

Keywords: Depression, GDS, older adults

Introduction

World Health Organisation has ranked depression as the 4th leading cause of disability worldwide (1) and projects that by 2020 it will become the 2nd leading cause (2). Depression is common in late life. According to Blazer it affects nearly 5 million of 31 million Americans aged 65 years or more (3). Furthermore, major depression is reported in 8-16% of community dwelling older adults. Prevalence of depression among Sri Lankan older population is not known. A study in Colombo district has found that lifetime prevalence of depression in that sample (6.6%) is lower compared to that (16.6%) in the USA (4). Depression is associated with functional and cognitive decline affecting person's quality of life. The patient and the family may fail to recognise it as an illness as symptoms of depression could be misinterpreted as signs of ageing. If untreated, depression could cause impairment in different spheres of life resulting in delayed recovery from medical illnesses and increased risk of suicide.

According to the World Bank, Sri Lanka has the fastest ageing population in South Asia (5). It also reveals that country's share of population over 60 years old in 2000 was 9.2% which will reach almost 30% by 2050. With growing number of elderly population in the country, health authorities need to plan services to cater for increasing needs. Studies on elderly depression will help to enhance services to improve mental well-being of the elderly.

The Geriatric Depression Scale (GDS) has been specifically designed to measure depression in older population (6). The shorter form of GDS with 15 items (GDS-15) has been widely used for research and clinical purposes as a time saving and acceptable substitute for 30 item GDS (7, 8). The 15 item GDS has been validated for Sri Lankan clinical population and it is culturally acceptable and easy to administer in outpatient settings in Sri Lanka (9). While English version of GDS-15 has the cutoff score of 5, cutoff value of GDS-S has been set as 8 with both specificity and sensitivity of 73.3%.

There are studies on prevalence of depression among different Sri Lankan populations. Study of patients aged 65 years and above admitted to National Hospital Sri Lanka (NHSL) found that 40% of the study sample have depression (10). In another study involving 100 subjects over 65 years of age admitted to NHSL found that over 60% of the sample met criteria for depression (11). A study on outdoor patients presented to the same hospital showed the prevalence of depression as 22.4% (12) However, in this study, the rate of prevalence was lower in older age group (above 61 years) compared to their younger counterparts (aged below 30 years). Other studies have also reported high prevalence of depression in patients with chronic illnesses (13, 14). Two community studies in Sri Lankan involving older adults report high prevalence of depression; one study which included predominantly a Sinhalese subjects has reported the prevalence rate of 27.8% (15) while the other study which included all three major ethnic groups reported the rate of 31.8% (16).

We screened an older population in a semi-urban community as a part of a larger study and in this paper we present data in relation to the presence of depressive symptoms in the sample which was screened.

Methods

We conducted a door to door survey and screened randomly selected people aged between 50 and 79 years from the Bope-Poddala Medical Officer of Health (MOH) area in Galle district. Those who had neurological illness, major psychiatric illness and severe visual or hearing impairment were excluded. A total of 300 individuals who met selection criteria and provided consent for the study were requested to fill the GDS-S. Those who indicated difficulty in filling the questionnaire due to the lack of literacy or due to visual problems were helped by the research assistants. Participants' medical records were perused and the presence of diabetes, hypertension, dyslipedaemia and ischaemic heart disease was recorded.

GDS-S score ranges from 0 to 15. In order to compare presence of depression in our sample with that in other Sri Lankan samples, we considered the cut off as 6. In our literature search two studies using GDS-15 in Sri Lankan community samples were found and in both studies a score of 6 or more has been considered as a suitable threshold (15, 16). We did not use the cut-off of the validation study (9) as it has been validated for a clinical sample.

Our study was approved by the Ethical Review Committee of Faculty of Medicine, University of Ruhuna.

Results

The majority were females (n=183, 61%). The mean age was 62 (SD=8) years. Twenty eight percent of participants were still working. Majority of the participants (83%) were living with spouse and 37 were widowed. Furthermore, 94% reported that they handled money and 97% reported as actively involved in household activities. Thirty six percent of participants (n=107) had sought medical treatment for one or more of the following conditions: diabetes, hypertension and dyslipidaemia and ischaemic heart disease. This group consisted of 40% of males and 36% of females. Forty three percent of the older age group(aged above 64 years) had one or more of those conditions against 30.7% of their younger counterparts ($p = 0.03$). Table 1 shows demographic and clinical characteristics of the sample.

Table 1: Demographic and clinical characteristics of the sample

Characteristic	Total = 300, Number (%)
Age (in years)	
50 - 64	179 (60)
65 - 79	121 (40)
Sex	
Female	183 (61)
Male	117 (39)
Educational level	
Up to 5 years	30 (10)
6 to 10 years	180 (60)
More than 10 years	89 (30)
Employment status	
Employed	84 (28)
Retired / Not working	122 (41)
Never worked	92 (30)
House-hold monthly income	
Up to Rs. 10,000	130 (43)
Rs. 10,000 to Rs. 20,000	101 (34)
More than Rs. 20,000	69 (23)
Non-communicable diseases	
Diabetes	40 (13)
Hypertension	73 (24)
dyslipidaemia	33 (11)
Ischaemic heart disease	18 (06)

GDS-S score of the sample ranged from 0 to 13. A total of 25 (8.3%) subjects met criteria for depression. This group included 10.3% of males (n=12) and 7.1% (n=13) females. We used cross tabulation to compare some demographic and clinical characteristics between two subgroups; those who met criteria for depression and those who did not. These data are summarised in Table 2. The proportion of subjects with GDS-S score 6 or above was less than 10% in each of the both age groups; i.e. those who were between 50 - 64 years of age and those who were above 64 years.

We failed to detect statistically significant associations between demographic variables and presence of GDS criteria for depression. Twenty four percent (n=6) of those who met criteria for depression had been diagnosed with one or more of the non-communicable disease we recorded. Statistically non-significant difference was observed between subjects with one or more non-communicable diseases and those without, in relation to presence of depression (5.6% versus 9.9% respectively).

Table 2: Associations of GDS-S score with demographic and clinical characteristics of the sample

		GDS-S score ≥6 n (%)	GDS-S score <6 n (%)	*p* value
Age	50 - 64 years	16 (9%)	162 (91%)	0.63
	65 - 79 years	9 (7.4%)	112 (92.6%)	
Gender	Male	12 (10.3%)	104 (89.7%)	0.32
	Female	13 (7.1%)	170 (92.9%)	
Education	Upto O/L	19 (9.1%)	190 (90.9%)	0.50
	Above O/L	6 (6.7%)	83 (93.3%)	
Monthly Income	Upto Rs.10,000	14 (10.9%)	115 (89.1%)	0.17
	> Rs. 10,000	11 (6.5%)	159 (93.5%)	
Employment status	Working	9 (10.8%)	74 (89.2%)	0.35
	Not working	16 (7.5%)	198 (92.5%)	
*Diseases	Present	6 (5.6%)	101 (94.4%)	0.19
	Absent	19 (9.9%)	173 (90.1%)	

* One or more of the following conditions; diabetes, hypertension, dyslipidaemia and ischaemic heart disease

Discussion

Our study found that one in every twelve older adults living in a semi-urban community show depressive symptoms. Two available community based studies conducted on the prevalence of depression among older Sri Lankan populations report higher prevalence rates (more than 25%) compared to the present study. This difference could be due to sample selection criteria; our sample was comparatively functional older adults free of severe physical disabilities or major neurological or psychiatric conditions. A population based survey in a sample aged 15 years and above living in Colombo district found that life time prevalence of depression is 6.6%, rising up to 11.2% if functional impairment criterion was excluded (4). Comparing our findings with the prevalence reported in this study is not appropriate due to notable difference in the age of the study samples. Moreover, the variations in prevalence rates reported by different studies could be due to the differences in the instruments used to detect depression.

It is known that depression is common among females and the risk for depression increases with age. However we failed to find associations between demographic variables and presence of depression. It could be due to the small sample size and also sample selection biases.

Studies involving older patients report high prevalence rates of depression ranging from 22.4% to 60% (11, 12). However our study sample comprised of comparatively healthy older adults due to exclusion criteria we used. Furthermore, a large majority of the study participants were actively involved in their house-hold activities. Therefore our finding that 8.3% of comparatively healthy community living older adults having depressive symptoms signals the need of professional attention to the well-being of older population. It also underscores the importance of community studies to explore depressive symptoms in elderly in large and more inclusive samples.

As one in every three of these people are already in contact with health care services for their medical problems, these services can provide assessment of depression to make appropriate referrals/ interventions to improve the mental health well-being of older adults. However the evidence from elsewhere indicates that depression is under-diagnosed in primary care settings (17).

None of the participant, who met criteria for depression, had approached psychiatric services. It could be due to misinterpretation of depressive symptoms as signs of ageing by these individuals and their families. It may indicate the need for mental health awareness raising programmes targeting general public.

Our study is not without limitations; relying on a self-administered questionnaire to detect depressive symptoms especially when the sample consists of 10% of participants only with primary education is a major limitation. Although we assisted these people by reading out the items and marking their responses, the written language used in the scale could be complicated for them. The other limitation is our sample selection criteria; we studied comparatively healthy older adults from a semi-urban area. Therefore our findings cannot be generalised for Sri Lankan older population.

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