

Depression Symptoms and Associated Factors Among Elderly Women in Kerala

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ABSTRACT

Depression is a significant health concern among the elderly population, and it has become increasingly prevalent in Kerala, India. This study aims to investigate the prevalence of depressive symptoms and its association with demographic socioeconomic and health factors of the elderly in Kerala using data from the Longitudinal Aging Study in India (LASI). The LASI is a nationally representative survey of the elderly population in India. This study used data from the LASI Wave 1 survey conducted in 2017-18. The sample consisted of 671 elderly women aged 60 years and above from Kerala. Depressive symptoms were measured using the Center for Epidemiological Studies Depression Scale (CES-D). In the study sample, it is observed that about 30 percent women have depression symptoms. This study suggests the need for gender-sensitive interventions to address the high prevalence of depressive symptoms among the elderly population in Kerala. These interventions should focus on reducing gender disparities in education, income, and access to healthcare. Moreover, it is essential to create awareness about mental health issues among the elderly and their families and provide adequate support and care to those suffering from depressive symptoms.

Keywords: Depression, Ageing, Elderly

Depression is a situation where a person feels enormously sad, distressed and hopeless with little to no energy for normal physical or mental activities. It is accompanied by a feeling of loss of guilt and lowering of self-esteem. The elderly experience changes and problems of biologic, psychologic and social dimensions that affect each other. When they are not able to cope with all these changes, there are many emotional disorders that occur in the elderly. One of the most frequently seen disorder is depression.

Depression is a mental health disorder that affect millions of people worldwide, an estimated 5 percent of adults were suffering from depression (WHO, 2020). Depression among elderly is a significant mental health issue that gain attention worldwide now a days. According to world Health Organization (WHO, 2020), More than 15 percent of adults aged 60 and above were experiencing mental health issues and depression globally.

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Depression among elderly is a serious mental issue that required help, care and attention. As people getting aged, they face various challenges such as the loss of loved ones, decline in physical health, risk in mobility, and social isolation. In addition, the development of chronic illnesses and drug side effects may promote the development of depression symptoms. Depression may occur differently among older adults than it does in younger people. The elderly might show symptoms including chronic illnesses, dissatisfaction, trouble sleeping, and loss of interest in activities (Srivastava, 2021). They could also feel physically sick without any medical reasons. Depression is independent of age, gender or any socio-economic backgrounds it is necessary to treat if any symptoms are shown, otherwise it may lead to serious issues (Zhang, 2019). The relationship between functional limits and depression has major implications for people's overall quality of life, influencing social 3 relationships, occupational performance, and life satisfaction (Banerjee, 2022).

Depression, on the other hand may also affect the sleep-wake cycle, resulting in extreme sleepiness or abnormal sleep patterns. It causes poor mental health and affects the capacity of dealing with day-to-day issues. Sleep problems are highly prevalent among older adults (Kim C, Ko H, 2018). Depression may lead to anaemia by changing food and eating patterns, resulting in a deficiency of nutrients such as iron, folate, and vitamin B12. In addition, depression is linked to changes in the hypothalamic-pituitary-adrenal (HPA) axis, which can lead to hormonal imbalances and have negative effects on red blood cell formation and lifespan (Mitrache et al. 2001). Depression can cause physiological changes and social behaviors which increase the possibility of getting other health problems. Multiple morbidity may worsen depressed symptoms, resulting in worsening of mental and physical health. Multimorbidity in the elderly has proven to be a factor that contributes to the potential development of depression (Lameira et al, 2023).

Feminisation of Ageing is another characterizing feature of ageing and the one which is more relevant to the present study is the Feminization of Ageing. Women live longer than men and they constitute the majority of the older population. Feminization of the older population is again more glaring in the more developed regions, but the disparities in this regard between the more developed regions and less developed regions are narrow. The fact that More Developed Regions have more women percentage in their older population, points to the irrevocable relation between development and feminization of the ageing process.

Depression and women

Depression is not uncommon among elderly individuals, and women may be at a higher risk compared to men. Several factors contribute to depression in elderly women, Chronic health conditions, pain, and disabilities that often come with aging can contribute to feelings of despair and depression. Loss of friends, family members, or a spouse, as well as changes in social roles and networks, can lead to social isolation and loneliness, increasing the risk of depression. Many elderly women take on caregiving roles for spouses or family members, which can be physically and emotionally demanding, leading to increased stress and the risk of depression. Hormonal changes associated with menopause can affect mood and contribute to depressive symptoms in some women. The loss of independence due to physical limitations or the need for assistance with daily activities can be emotionally challenging and contribute to feelings of helplessness and depression. The cumulative effect of experiencing multiple losses, such as the death of friends or family members, can contribute to grief and depression in the elderly. Cognitive decline, including conditions like dementia, can be emotionally challenging and contribute to depressive symptoms. Limited financial

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resources and concerns about economic stability can be a significant source of stress and contribute to depression.

Rasquinha (2013) studied the differences in depression among institutionalized and non-institutionalized elderly women with their partner alive and widows. Results revealed that widows had greater depression compared to women who had their husbands alive. Rikhi and Chadha (2004) examined the level of psycho social problems of elderly females in old age home and in families in Bangalore and revealed that the problems of elderly females both in old age home and in families were high.

Old age is a time of losses. It is the stage of life when an individual gradually or suddenly loses his physical vigour, physiological resources of body functions, occupation, friends, and spouse and may be independence. These life events keep on occurring continuously in the life of an old person. If and when these stresses become too severe or too numerous, they might affect the physical and or psychic equilibrium producing maladaptive patterns of adjustment including physical and mental disorders, especially depression. Timely detection and treatment appreciably reduces the disease burden. The situation of Kerala, as far as population ageing is concerned, seems to be a catastrophic one. Kerala has the highest percentage of elderly population in India according to census 2011.

Relevance of the study

Elderly individuals are susceptible to psychological issues, with depression being the most prevalent. Ongoing economic development and changes in family dynamics have caused a growing number of elderly women to feel marginalized and experience loneliness and depression within their own households. As individuals age, there is an elevated incidence of health problems and functional decline. Furthermore, a multitude of depressive triggers arise, coupled with significant life events such as spousal loss, retirement, interpersonal conflicts within the family, financial hardship, and social isolation. These circumstances profoundly affect the mental well-being of elderly women, rendering them more prone to depression. Identifying risk factors and addressing underlying issues can play a pivotal role in enhancing the health and overall well-being of the elderly population. Consequently, it is imperative to extend appropriate support and care to them when necessary.

Objective of the study

The main objectives of the study are:

- To assess the prevalence of depression symptoms among older women in Kerala.
- To find out the association of depression symptoms according to demographic, socioeconomic and health characteristics.

Data

This study relied on secondary data obtained from the Longitudinal Aging Study in India (LASI) conducted in 2017-2018. LASI is a comprehensive national survey designed to investigate the scientific aspects of health, economics, social determinants, and consequences related to the aging population in India. This survey is nationally representative and encompasses a vast sample of 72,250 older adults aged 45 and above, spanning all states and union territories of India. Notably, LASI stands as the world's largest and India's first-ever longitudinal study focusing on aging.

For the present research, data specifically from the state of Kerala were utilized. The study sample comprised 671 women aged 60 years and older. Data on depression were collected

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using the CESD (Center for Epidemiologic Studies Depression) scale. Furthermore, information pertaining to depression was gathered in relation to various demographic factors, including age, gender, marital status, place of residence, living arrangements, religion, caste, education, employment status, MPCE (Monthly Per Capita Consumer Expenditure) quintile, as well as risk factors such as functional limitations, physical activity, and unhealthy behaviours. These data points were extracted from the LASI dataset to support the research objectives.

METHODOLOGY

Centre for Epidemiologic Studies Depression (CES-D) scale was used to calculate the prevalence of depressive symptoms among elderly. Centre for Epidemiologic Studies Depression Scale (CES-D): CES-D scale is a 20-item scale, while a shortened 10-item scale with four scale option categories was used in the LASI. The 10 items included seven negative symptoms (trouble concentrating, feeling depressed, low energy, fear of something, feeling alone, bothered by things, and everything is an effort), and three positive symptoms (feeling happy, hopeful, and satisfied). Response options included rarely or never (< 1 day), sometimes (1 or 2 days), often (3 or 4 days), and most or all of the time (5-7 days) in a week prior to the interview. For negative symptoms, rarely or never (< 1 day), and sometimes (1 or 2 days) were scored zero, and often (3 or 4 days) and most or all of the time (5-7 days) categories were scored one. Scoring was reversed for positive symptoms. The overall score ranges from zero to 10 and score of four or more are used to calculate the prevalence of depressive symptoms.

Profile of Older Adults in the Sample

In the present study, sample population comprises 671 elderly women, all of whom are 60 years of age or older. Regarding the age distribution within this group, it is noteworthy that more than half of them fall within the 60-69 age bracket, while approximately 30 percent are between the ages of 70 and 79. The remaining 13 percent are aged 80 and above. In terms of residence, over half of the elderly women reside in rural areas. As for religious affiliation, roughly 60 percent identify as Hindus, 17 percent as Muslims, and 22.7 percent as Christians. Within the sample, nearly 7 percent belong to the Scheduled Caste (SC) category, approximately 2 percent are classified as Scheduled Tribes (ST), around 42 percent fall into other categories, and half are categorized as Other Backward Classes (OBC).

Considering their economic status, approximately 19 percent are classified as the poorest, 23 percent as the richest, and 18 percent fall into the middle-income category. Education-wise, nearly 20 percent of the elderly women did not receive formal schooling, while 47 percent attained up to a primary level of education. About 25 percent completed secondary education, and approximately 8 percent pursued higher education.

Marital status reveals that around 44 percent of the elderly women are currently married, while the majority of respondents are widowed. Approximately 8 percent of them live alone, 26 percent reside with their spouse and children, 18 percent share their residence with their spouse and other individuals, and roughly 39 percent live with their children and other family members. Regarding their working status, about six percent of respondents are currently employed.

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Table 1 Profile of the sample

Variables	Categories	Percentage of elderly women
Age	60-69	56.9
	70-79	29.8
	80+	13.3
Place of Residence	Rural	52.9
	Urban	47.1
Religion	Hindu	59.8
	Muslim	17.4
	Christian	22.7
	Others	0.1
Caste	SC	7.3
	ST	1.6
	OBC	49.5
	Others	41.6
Education	No education	20.3
	Upto primary	47.2
	Upto secondary	24.9
	Secondary & above	7.6
Marital Status	Married	44.4
	Widowed	51.7
	Others	3.9
Working Status	Yes	6.3
	No	93.7
Living Arrangement	Living alone	7.5
	Living with spouse and others	18.0
	Living with spouse and children	26.1
	Living with children and others	38.7
	Living with others only	9.7
MPCE Quintile	Poorest	18.8
	Poorer	19.8
	Middle	18.3
	Richer	20.0
	Richest	23.1
Total		671

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Centre for Epidemiologic Studies Depression Scale (CES-D) is a 20-item scale, while a shortened 10-item scale with four scale option categories was used in the LASI. The 10 items included seven negative symptoms (trouble concentrating, feeling depressed, low energy, fear of something, feeling alone, bothered by things, and everything is an effort), and three positive symptoms (feeling happy, hopeful, and satisfied). In the study sample, it is observed that about 30 percent have depression symptoms.

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Table 2 Percentage Distribution of Elderly Women by Depression Symptoms

Depression	Percentage of women
Yes	30.3
No	69.7
Total	671

Figure 1

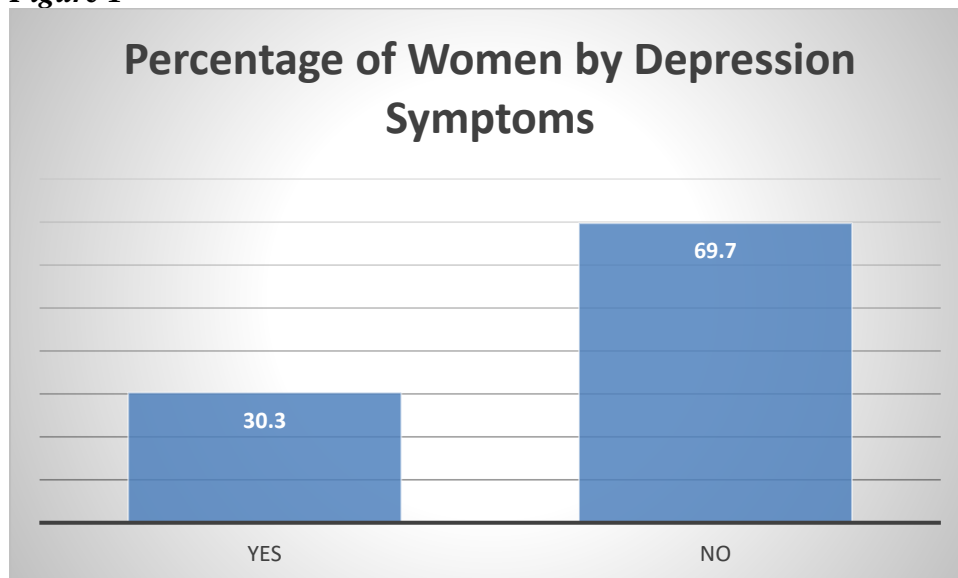


Table 3 Distribution of Older Adults by Symptoms of Depression

Symptoms	Percentage of older women who had depression
Trouble concentration	14.9
Feeling depressed	16
Low energy	29.1
Fear of something	11.2
Feeling alone	14.6
Bothered by things	10.4
Everything is an effort	10.7
Not feeling satisfied	22.3
Not Feeling hopeful	22.6
Not Feeling happy	33.5

Table 3 shows the distribution of older women who had depression by symptoms. Among the older females, about 16 percent of them were feeling depressed, 15 percent of them were facing trouble in concentration and feeling alone, 34 percent were not feeling happy and 22 percent of older women were not feeling satisfied.

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Table 4 Prevalence of Depression Symptoms among Elderly Women by Socioeconomic and Demographic Characteristics

Variables	Categories	Percentage of elderly women		P Value
		Yes	No	
Age	60-69	27.2	72.8	.442
	70-79	35.5	64.5	
	80+	31.5	68.5	
Place of Residence	Rural	30.7	69.3	.788
	Urban	29.7	70.3	
Religion	Hindu	32.2	67.8	.226
	Muslim	28.2	71.8	
	Christian	26.3	73.7	
Caste	SC	32.7	67.3	.450
	ST	18.2	81.8	
	OBC	32.5	67.5	
	Others	27.6	72.4	
Education	No education	31.6	68.4	.135
	Upto primary	31.2	68.8	
	Upto secondary	31.7	68.3	
	Secondary & above	15.7	84.3	
Marital Status*	Married	24.8	75.2	.005
	Widowed	35.7	64.3	
	Others	19.2	80.8	
Working Status	Yes	28.6	71.4	.463
	No	34.5	65.5	
Living Arrangement*	Living alone	48	52	.006
	Living with spouse and others	27.3	72.7	
	Living with spouse and children	22.9	77.1	
	Living with children and others	33.8	66.2	
	Living with others only	27.7	72.3	
MPCE Quintile	Poorest	34.1	65.9	.851
	Poorer	27.8	72.2	
	Middle	29.3	70.7	
	Richer	30.6	69.4	
	Richest	29.7	70.3	
Have Chronic illness	Yes	32.0	68.0	.060
	No	23.7	76.3	
Activities of Daily Living*	Yes	37.6	62.4	.010
	No	27.4	72.6	
Instrumental Activities of Daily Living*	Yes	34.3	65.7	.019
	No	26.0	74.0	
Total		203	468	

* $p < .005$

In this current research, it has been observed that the prevalence of depression tends to increase as individuals age. Several factors contribute to this rise in depression rates among

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older adults, including heightened economic and physical dependence and the loss of a spouse. Notably, elderly women residing in rural areas exhibit slightly higher levels of depression symptoms compared to their urban counterparts. When examining depression across different religious affiliations, it becomes apparent that elderly women of the Hindu faith tend to experience more depression symptoms, followed by Muslims and Christians.

Additionally, elderly women from Scheduled Castes (SC) and Other Backward Classes (OBC) exhibit a higher prevalence of depression symptoms compared to individuals from other social categories. Furthermore, elderly females with lower levels of education are at a greater risk of suffering from depression. Widowed women, in particular, experience a higher percentage (36 percent) of depression symptoms compared to their married counterparts. This heightened risk can be attributed to the abrupt loss of emotional and positive support received from their spouses, resulting in feelings of loneliness and social isolation, which may contribute to depression.

Interestingly, elderly females who are actively employed tend to experience fewer depression symptoms than those who are not employed. Moreover, individuals who live alone or with children and others are more likely to experience depression compared to those living in different arrangements. Finally, women who face financial instability and economic challenges are at a higher risk of developing depression compared to those in the middle-class women."

Among the women who suffered from chronic issues, about 32 percent have depression symptoms. Among the women who had limitations in activities of daily living, about 38 percent have depression symptoms. Among the women who had limitations in instrumental activities of daily living, about 34 percent have depression symptoms.

It was found that marital status, living arrangements, activities of daily living and instrumental activities of daily living have significant association with depression among the elderly women.

CONCLUSION

Identifying and treating depression among elderly is very important. It can affect significantly on their overall well-being, quality of life, and physical health. Using counselling, medication, care and social support can help to reduce symptoms of depression and regain mental health of elderly. By knowing and treating the emotional needs of elderly makes them happy and satisfied. Living arrangements that provide a strong social support network, such as living with family members or close friends, may help to reduce the feelings of isolation and loneliness, both of which are risk factors for depression. Interacting with others on a daily basis can provide emotional support and minimize the incidence of depressed symptoms. Living alone or in conditions with limited social interaction, on the other hand, may raise the chance of feeling lonely, which can lead to the development or severity of depression.

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Conflict of Interest

The author(s) declared no conflict of interest.

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