



**Cross Sectional Observation study on Exploring the Prevalence of Depression in Geriatric patients attending Outpatient Department**

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**ABSTRACT**

Depression is the greatest cause of disability across the globe and a significant contributor to the overall global burden of disease. It is also one of the most frequent geriatric psychiatric diseases, and it is a substantial risk factor for disability and mortality in older individuals. Even though depression is a frequent issue affecting the mental health of the senior population, it is estimated that approximately fifty percent of instances go misdiagnosed. According to estimates provided by the WHO, the global prevalence of depressive illness among older individuals was anywhere between 10 and 20%. Forty percent of all people who suffer from mental illness have been identified as having a depressive disorder. The main objective of the present investigation is to explore the prevalence of depression in geriatric patients and to document the implications of the same. Cross sectional observation study comprises of 100 study participants to explore the questionnaires' based survey with respect to the prevalence of depression in geriatric patients. Result on the assessment of geriatric depression scale reveals that considerable percentage of population lacks hope in future, bothered by their thoughts, pessimistic behaviour, restless, fidgety, downhearted, lack of concentration, urge for crying, social isolation and inability to make decisions in their day to day life. Outcome of the study depicts that on an average 60.57% patients are having depression score with 57.67% to 63.43% of 95% confidence interval. Generalization of depression score was calculated using and mean with 95% CI and proportion with 95% CI. Patients with age group of 60- 65 have more depression. Female patients have severe depression than male. No Income and assets for elderly are having more depression than others with income and assets. In conclusion the data's of the present investigation provided an insight on the prevalence among diversified population of geriatric patients, which would substantially helps the clinicians and researcher in bringing reliable point of care for the management of depressive disorders.

**KEY WORDS:** *Geriatric depression, Prevalence, Cross sectional, Observational study, Survey, Mental illness*

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## 1. Introduction

According to an estimate by the World Health Organization (WHO), the total prevalence rate of depression in the elderly population typically ranges anywhere from ten to twenty percent, depending on the cultural circumstances [1]. The community-based mental health studies that were conducted in India found that the point prevalence of depression in India's elderly population ranges anywhere from 13 percent to 25 percent of the total population. According to the findings of the WHO, the risk factors for developing depression in older adults include genetic susceptibility, chronic disease and disability, pain, frustration with limitations in activities of daily living (ADL), personality trait (dependent, anxious, or avoidant), negative life events (widowhood, separation, divorce, bereavement, poverty, social isolation), and a lack of adequate social support [2].

A number of characteristics, including as age, sex, pain, limited mobility, low education, comorbidity, and social support, were found to be associated with depression in older patients who lived in the community [3-4]. In addition, previous research conducted on elderly patients who suffered from chronic disabilities found a significant link between depression and obesity, as well as a longer walking time and a slower walking speed [5-6]. These findings were gleaned from studies that were conducted on elderly patients.

Data from around the world show that the number of adults in India who are 65 or older is growing by a lot. Even though there are more of them, there aren't enough resources to meet their mental health needs [7]. The mental health of people in Northern India, in particular, is worse than in the South, according to data. Neuropsychiatric disorders and depression are still very common and have a lot of effects, but not much is known about them.

There is a large amount of unanimity among experts that older persons who have depression with a late start have unique risk factors and presentations. Those who experience early onset depression are more likely to have a family history of depression than those who experience late onset depression [8], possibly implying that the occurrence of the disorder was genetically influenced. Those who experience late onset depression are less likely to have a family history of depression. People who

experience depression at a younger age may also have a higher prevalence of personality disorders or higher scores on personality traits like neuroticism [9].

Late-onset depression in older persons has unique risk factors and symptoms. Early onset depression is more likely to have a family history of depression than late onset depression, reflecting genetic involvement. Early-onset depression may also be associated with personality disorder or neuroticism [10]. The main objective of the present investigation is to explore the prevalence of depression in geriatric patients and to document the implications of the same.

## 2. Materials and Methods

### 2.1. Study design

Cross sectional observation study comprises of 100 study participants to explore the questionnaires' based survey with respect to the prevalence of depression in geriatric patients. Institutional ethical committee clearance was obtained for this study. Study proceeded for the period of three months at siddha outpatient department (OPD) of Arignar Anna Government Hospital of Indian Medicine, Arumbakkam, Chennai, Tamil Nadu, India. Participants were explained about the purpose and objective of the study and also received consent to participate in this study. It involved the collection of data on socio demographic, gender, education, occupation, geriatric depression scale, level and score of depression. All the collected data's were dealt with the high level of anonymity and confidentiality.

### 2.2. Questioner Pattern

The questionnaire was divided accordingly to cover the entire purpose of the study such as age, gender, socio demography, physical activity, geriatric depression scale, level and score of depression which were undertaken by using a questionnaire.

### 2.3. Statistical Analysis

Data were entered and analysed using SPSS statistics VERSION 26 in Siddha Central Research Institute, Chennai. The results were summarized as percentage and proportions.

**3.Results**

**3.1. Demographic diversification in the Study population**

It was observed from the study that the demographic information of geriatric patients those who are participated for the following study on “Prevalence of depression in geriatric patients attending OPD at AAGHIM attached with GSMC, Chennai - a cross sectional study. As shown in table1

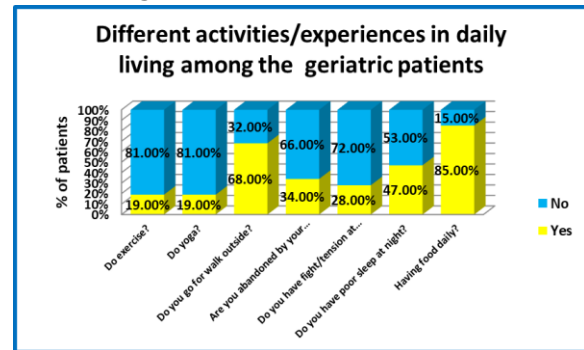
**Table 1: Demographic diversification in the Study population**

Demographic variables		Number of Geriatric patients	Percentage Prevalence
Age Group	60 -65 years	57	57.00%
	66- 70 years	25	25.00%
	71- 75 years	12	12.00%
	76- 80 years	6	6.00%
Gender	Male	52	52.00%
	Female	48	48.00%
Marital Status	Married	68	68.00%
	Never Married	0	0.00%
	Divorced	0	0.00%
	Widower	32	32.00%
Occupation	Currently working	8	8.00%
	Worked before	15	15.00%
	Retired	10	10.00%
	Not working	67	67.00%
Education	Illiterate	48	48.00%
	knows to read and write	19	19.00%
	School	13	13.00%
	College	20	20.00%
Family status	Nuclear family	83	83.00%
	Extended family	13	13.00%
	Childless family	0	0.00%
	Others	4	4.00%
BMI	Under weight	0	0.00%
	Normal	25	25.00%
	Over weight	70	70.00%
	Obese	5	5.00%
Food Habits	Vegetarian	32	32.00%
	Non-vegetarian	68	68.00%
Any income and assets for elderly	Yes	18	18.00%
	No	82	82.00%

H/O Non communicable Disease	Diabetes	32	32.00%
	Hypertension	15	15.00%
	Bronchial asthma	3	3.00%
	Arthritis	50	50.00%
	Others	0	0.00%
	None	0	0.00%

**3.2. Impact of socio and behavioral changes in the Study population**

Result analysis shows the different activities/experiences in daily living among the geriatric patients. 19% of the Patients do exercise, 19% of them do yoga, 68% of them are having habit go for walk outside. 34% patients are abandoned by their children.28% of them have fight at home.47% of them have poor sleep at night and 85% of the patients are having daily food. As shown in figure 1.



**Figure 1: Impact of socio and behavioural changes in the Study population**

**3.3. Assessment on Geriatric depression scale in the study population**

Result on the assessment of geriatric depression scale reveals that considerable percentage of population lacks hope in future, bothered by their thoughts, pessimistic behaviour, restless, fidgety, downhearted, lack of concentration, urge for crying, social isolation and inability to make decisions in their day to day life. As listed in table 2.

**3.4. Assessment on Depression score among the study population**

Result signifies that the percentage level of depressive score among Geriatric patients. In general, 16.00% of the patients are normal level score, 39.00% of them having moderate depressive level of score and 45.00% of them are having

severe depressives level of score. The basic Cut-off for the above mentioned scoring assessment was made based on the following scaling: normal-0-9; mild depressives-10-19; severe depressives-20-30 as shown in figure 2.

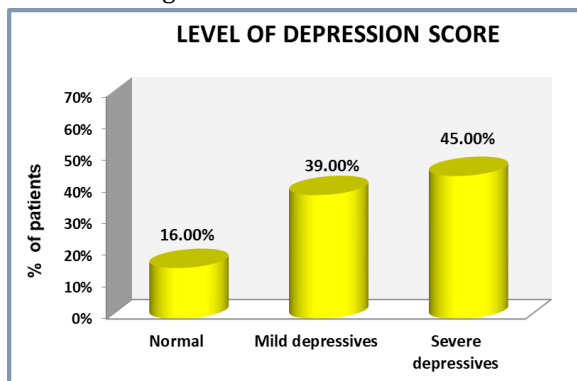


Figure 2: Assessment on Depression score among the study population

### 3.5. Overall prevalence of depression score among geriatric patients

Outcome of the study depicts that on an average 60.57% patients are having depression score with 57.67% to 63.43% of 95% confidence interval. Generalization of depression score was calculated using and mean with 95% CI and proportion with 95% CI. As shown in table 3.

### 3.6. Association between level of depression score and patients demographic variables

Analysis shows the association between the level of depression and patients demographic variables. Patients with age group of 60- 65 have more depression. Female patients have severe depression than male. No Income and assets for elderly are having more depression than others with income and assets. From the above study there is association between the age group, gender, and no income or assets and the level of depression. Statistical significance was assessed using chi square test. As shown in table 4.

### 3.7. Association between Different activities/experiences in daily living among the geriatric patients and their level of Depression

Analysis shows the association between the Association between Different

activities/experiences in daily living among the geriatric patients and their level of Depression. Abandoned by children geriatric patients are having more depression than others. Statistical significance was assessed using chi square test. As shown in table 5

## 4. Discussion

Depression is a primary source of disability-adjusted life years around the world<sup>1</sup>, and it poses a significant threat to the public's overall health, particularly in the elderly population. It is estimated that up to 80 percent of older americans who suffer from depression receive treatment for their condition in basic care settings [11]. Depression is one of the most prevalent conditions treated in primary care, and the percentage of depression visits that took place in primary care climbed from 51% to 64% between the years 1997 and 2002. Depression is one of the most common conditions treated in basic care [12]. The primary care setting consequently offers significant opportunity for identifying and treating depressive states in older patients.

Research has shown that depression is a substantial factor in the entire global burden of disease and is the top cause of disability in the globe. It is also one of the most frequent geriatric psychiatric illnesses [13], and it is a major risk factor for disability and mortality in older individuals [14]. Even though depression is a prevalent issue affecting older people's mental health, experts estimate that almost half of all cases go undetected. Estimates for the proportion of elderly people who suffer from depression range widely [15]. According to estimates provided by the WHO [16], the prevalence of major depressive disorder among people aged 60 and older ranged between 10 and 20 percent worldwide. Forty percent of all patients diagnosed with mental illness have been found to suffer from a depressive disorder [17]. People who suffer from depressive disorders have a mortality risk that is forty percent higher than the general population [18]. Result analysis shows the different activities/experiences in daily living among the geriatric patients. 19% of the them do exercise, 19% of them do yoga, 68% of them are having habit go for walk outside. 34%

patients are abandoned by their children. 28% of them have fight at home. 47% of them have poor sleep at night and 85% of the patients are having daily food.

It is believed that psychological, social, and biological processes are what determine the etiology of depression and concomitant psychiatric diagnoses (such as anxiety and other personality disorders) [19], despite the fact that the actual origins of depression are still unclear. According to the psychosocial theory, which was developed by social scientists, one of the potential causes of depression is a lack of interpersonal and communication skills, as well as social support and coping mechanisms [20]. In older biological ideas, the deficiency of monoamines in the brain was thought to be the root cause of depression. Depression in the elderly is typically the result of a complicated interaction between social influences, psychological factors, and biological factors [21]. Result on the assessment of geriatric depression scale reveals that considerable percentage of population lacks hope in future, bothered by their thoughts, pessimistic behaviour, restless, fidgety, downhearted, lack of concentration, urge for crying, social isolation and inability to make decisions in their day to day life. Our results also signifies that the percentage level of depressive score among Geriatric patients. In general, 16.00% of the patients are normal level score, 39.00% of them having moderate depressive level of score and 45.00% of them are having severe depressives level of score.

The Geriatric Depression Scale (GDS) and the Patient Health Questionnaire (PHQ-9) are two of the screening measures that are used the most frequently to measure the presence of depression symptoms in the population of older adults [22]. The GDS was developed primarily for older persons who live in the community and has been applied to older adults who have been hospitalized for depressive disorder. The GDS utilizes a "yes" or "no" rating scale and requires the patient to recall symptoms from the past week. On the other hand, the more complicated 4-point scale calls for a memory span of two weeks, which may be challenging for a patient who has cognitive

impairment [23]. The material that makes up the GDS has been altered so that it more accurately reflects the characteristics of depression that are typically seen in people of advanced age. These characteristics include feelings of hopelessness, helplessness, guilt, and worthlessness [24]. Outcome of the study depicts that on an average 60.57% patients are having depression score with 57.67% to 63.43% of 95% confidence interval. Generalization of depression score was calculated using and mean with 95% CI and proportion with 95% CI.

## 5. Conclusion

Depression advances biological aging evidenced by shorter telomere length, accelerated brain aging and advanced epigenetic aging. Depression increases the risk of obesity, frailty, diabetes, cognitive impairment, and mortality. Outcome of the study depicts that Patients with age group of 60- 65yrs have more depression. Female patients have severe depression than male. No Income and assets for elderly are having more depression than others with income and assets. In conclusion the data's of the present investigation provided an insight on the prevalence among diversified population of geriatric patients, which would substantially help the clinicians and researcher in bringing reliable point of care for the management of depressive disorders.

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## 6. References

1. Wig NN. World Health Day, 2001. Indian J Psychiatry. 2001;43:1-4.
2. Kennedy GJ, Kelman HR, Thomas C, Wisniewski W, Metz H, Bijur PE. Hierarchy of characteristics associated with depressive symptoms in an urban elderly sample. Am J Psychiatry. 1989;146:220-5.
3. Aravena JM, Saguez R, Lera L, Moya MO, Albala C. Factors related to depressive symptoms and self-reported diagnosis of depression in community-dwelling older Chileans: A

- national cross-sectional analysis. *Int J Geriatr Psychiatry*. 2020;35(7):749–58.
4. Lee Y, Shinkai S. Correlates of cognitive impairment and depressive symptoms among older adults in Korea and Japan. *Int J Geriatr Psychiatry*. 2005;20(6):576–586.
  5. Iijima H, Aoyama T, Fukutani N, Isho T, Yamamoto Y, Hiraoka M, et al. Psychological health is associated with knee pain and physical function in patients with knee osteoarthritis: an exploratory cross-sectional study. *BMC Psychol*. 2018;6(1):19.
  6. Batsis JA, Zbehlik AJ, Pidgeon D, Bartels SJ. Dynapenic obesity and the effect on long-term physical function and quality of life: data from the osteoarthritis initiative. *BMC Geriatr*. 2015;15:118.
  7. Banerjee K, Baker TA. Psychosocial Factors Influencing Depressive Symptoms among older adults from northern India. *Innov Aging*. 2019 Nov 8;3(Suppl 1):S313.
  8. Heun R, Papassotiropoulos A, Jessen F, Maier W, Breitner JC. A family study of Alzheimer disease and early- and late-onset depression in elderly patients. *Arch. Gen. Psychiatry*. 2001;58:190–6.
  9. Brodaty H, Luscombe G, Parker G, Wilhelm K, Hickie I, et al. Early and late onset depression in old age: Different aetiologies, same phenomenology. *J. Affect. Disord*. 2001;66:225–36.
  10. Bradley B, Backus D, Gray E. Depression in the older adult: What should be considered? *Ment Health Clin*. 201;6(5):222-228.
  11. Kessler RC, Birnbaum H, Bromet E, Hwang I, Sampson N, Shahly V. Age differences in major depression: results from the National Comorbidity Survey Replication (NCS-R) *Psychological Medicine*. 2010;40(02):225–237.
  12. Harman JS, Veazie PJ, Lyness JM. Primary Care Physician Office Visits for Depression by Older Americans. *Journal of General Internal Medicine*. 2006;21(9):926–930.
  13. Moss K, Scogin F, Di Napoli E, Presnell A. A self-help behavioral activation treatment for geriatric depressive symptoms. *Aging Ment Health*. 2012;16(5):625–635.
  14. Blazer DG, Hybels CF, Pieper CF. The association of depression and mortality in elderly persons: a case for multiple, independent pathways. *J Gerontol A Biol Sci Med Sci*. 2001;56(8):M505–M509.
  15. Demyttenaere K, Bruffaerts R, Posada-Villa J, Gasquet I, Kovess V, Lepine JP, et al. Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. *JAMA*. 2004;291(21):2581–2590.
  16. Raviola G, Eustache E, Oswald C, Belkin GS. Mental health response in Haiti in the aftermath of the 2010 earthquake: a case study for building long-term solutions. *Harv Rev Psychiatry*. 2012;20(1):68–77.
  17. Patel V, Saxena S. Transforming lives, enhancing communities—innovations in global mental health. *N Engl J Med*. 2014;370(6):498–501.
  18. Organization WH. The mental health of older adults: fact Sheet. World Health Organization Media Centre.
  19. Lemma A, Target M, Fonagy P. The development of a brief psychodynamic protocol for depression: Dynamic Interpersonal Therapy (DIT) *Psychoanal Psychother*. 2010;24(4):329–346.
  20. Gonzalez VM, Goepfinger J, Lorig K. Four psychosocial theories and their application to patient education and clinical practice. *Arthritis Rheum*. 1990;3(3):132–143.
  21. Munsawaengsub C. Factors influencing the mental health of the elderly in Songkhla, Thailand. *J Med Assoc Thai*. 2012;95(6):S8–S15.
  22. Gradishar WJ, Vokes EE, Kies MS. . Phase II trial of etoposide and doxorubicin in advanced head and neck cancer. *Med Pediatr Oncol*. 1990; 18 6: 487- 90.
  23. Lakkis NA, Mahmassani DM. . Screening instruments for depression in primary care: a concise review for clinicians. *Postgrad Med*. 2015; 127 1: 99- 106.

24. Smarr KL, Keefer AL. Measures of depression and depressive symptoms: Beck Depression Inventory-II (BDI-II), Center for Epidemiologic Studies Depression Scale (CES-D), Geriatric Depression Scale (GDS), Hospital Anxiety and Depression Scale (HADS), and Patient Health Questionnaire. *Arthritis Care Res (Hoboken)*. 2011; 63 Suppl 11: S454- 66.

**Table 2: Assessment on Geriatric depression scale in the study population**

Sno	Statements	Depression score			
		Yes		No	
		N	%	n	%
1	Are you basically satisfied with your life?	70	70.00%	30	30.00%
2	Have you dropped many of your activities and interests?	45	45.00%	55	55.00%
3	Do you feel that your life is empty?	38	38.00%	62	62.00%
4	Do you often get bored?	39	39.00%	61	61.00%
5	Are you hopeful about the future?	37	37.00%	63	63.00%
6	Are you bothered by thoughts you can't get out of your head?	39	39.00%	61	61.00%
7	Are you in good spirits most of the time?	58	58.00%	42	42.00%
8	Are you afraid that something bad is going to happen to you?	48	48.00%	52	52.00%
9	Do you feel happy most of the time?	59	59.00%	41	41.00%
10	Do you often feel helpless?	53	53.00%	47	47.00%
11	Do you often get restless and fidgety?	31	31.00%	69	69.00%
12	Do you prefer to stay at home, rather than going out and doing new things?	44	44.00%	56	56.00%
13	Do you frequently worry about the future?	50	50.00%	50	50.00%
14	Do you feel you have more problems with memory than most?	55	55.00%	45	45.00%
15	Do you think it is wonderful to be alive now?	60	60.00%	40	40.00%
16	Do you often feel downhearted and blue?	59	59.00%	41	41.00%
17	Do you feel pretty worthless the way you are now?	55	55.00%	45	45.00%
18	Do you worry a lot about the past?	48	48.00%	52	52.00%
19	Do you find life very exciting?	18	18.00%	82	82.00%
20	Is it hard for you to get started on new projects?	77	77.00%	23	23.00%
21	Do you feel full of energy?	41	41.00%	59	59.00%
22	Do you feel that your situation is hopeless?	59	59.00%	41	41.00%
23	Do you think that most people are better off than you are?	58	58.00%	42	42.00%
24	Do you frequently get upset over little things?	65	65.00%	35	35.00%
25	Do you frequently feel like crying?	51	51.00%	49	49.00%
25	Do you frequently feel like crying?	51	51.00%	49	49.00%
26	Do you have trouble concentrating?	63	63.00%	37	37.00%
27	Do you enjoy getting up in the morning?	51	51.00%	49	49.00%
28	Do you prefer to avoid social gatherings?	59	59.00%	41	41.00%
29	Is it easy for you to make decisions?	50	50.00%	50	50.00%
30	Is your mind as clear as it used to be?	37	37.00%	63	63.00%

**Table 3: Overall Prevalence of Depression Score among Geriatric Patients**

Max score	Mean Depression score	% of Depression score	Mean Depression score with 95% Confidence interval	Percentage of Depression score with 95% Confidence interval
30	18.17	60.57%	18.17(17.30 -19.03)	60.57% (57.67% - 63.43%)

**Table 4: Association between level of depression score and patients demographic variables**

Demographic variables		Level of Depression						n	Chi square test
		Normal		Mild depressives		Severe depressives			
		n	%	N	%	n	%		
Age Group	60 -65 years	13	22.81%	28	49.12%	16	28.07%	57	$\chi^2=14.78P=0.02^*$ DF=6(S)
	66- 70 years	3	12.00%	7	28.00%	15	60.00%		
	71- 75 years	0	0.00%	3	25.00%	9	75.00%		
	76- 80 years	0	0.00%	1	16.67%	5	83.33%		
Gender	Male	11	21.15%	24	46.15%	17	32.69%	52	$\chi^2=6.87P=0.03^*$ DF=2(S)
	Female	5	10.42%	15	31.25%	28	58.33%		



Marital Status	Married	13	19.12%	24	35.29%	31	45.59%	68	$\chi^2=2.06P=0.36$ DF=2(NS)
	Never Married	0	0.00%	0	0.00%	0	0.00%	0	
	Divorced	0	0.00%	0	0.00%	0	0.00%	0	
	Widower	3	9.38%	15	46.88%	14	43.75%	32	
Occupations	Currently working	1	12.50%	5	62.50%	2	25.00%	8	$\chi^2=6.06P=0.42$ DF=6(NS)
	Worked before	5	33.33%	4	26.67%	6	40.00%	15	
	Retired	1	10.00%	4	40.00%	5	50.00%	10	
	Not working	9	13.43%	26	38.81%	32	47.76%	67	
Education	Illiterate	5	10.42%	18	37.50%	25	52.08%	48	$\chi^2=4.51P=0.61$ DF=6(NS)
	knows to read and write	4	21.05%	8	42.11%	7	36.84%	19	
	School	4	30.77%	5	38.46%	4	30.77%	13	
	College	3	15.00%	8	40.00%	9	45.00%	20	
Family status	Nuclear family	13	15.66%	31	37.35%	39	46.99%	83	$\chi^2=5.78P=0.22$ DF=4(NS)
	Extended family	2	15.38%	8	61.54%	3	23.08%	13	
	Childless family	0	0.00%	0	0.00%	0	0.00%	0	
	Others	1	25.00%	0	0.00%	3	75.00%	4	
BMI	Under weight	0	0.00%	0	0.00%	0	0.00%	0	$\chi^2=2.64P=0.62$ DF=4(NS)
	Normal	2	8.00%	12	48.00%	11	44.00%	25	
	Over weight	13	18.57%	26	37.14%	31	44.29%	70	
	Obese	1	20.00%	1	20.00%	3	60.00%	5	
Food Habits	Vegetarian	5	15.63%	17	53.13%	10	31.25%	32	$\chi^2=4.39P=0.11$ DF=2(NS)
	Non-vegetarian	11	16.18%	22	32.35%	35	51.47%	68	
Any Income and assets for elderly	Yes	6	33.33%	8	44.44%	4	22.22%	18	$\chi^2=6.82P=0.03$ * DF=2(S)
	No	10	12.20%	31	37.80%	41	50.00%	82	
H/O Non communicable Disease	Diabetes	4	12.50%	15	46.88%	13	40.63%	32	$\chi^2=3.31P=0.78$ DF=6(NS)
	Hypertension	3	20.00%	6	40.00%	6	40.00%	15	
	Bronchial asthma	0	0.00%	2	66.67%	1	33.33%	3	
	Arthritis	9	18.00%	16	32.00%	25	50.00%	50	
	Others	0	0.00%	0	0.00%	0	0.00%	0	
	None	0	0.00%	0	0.00%	0	0.00%	0	

**Table 5: Association between Different activities/experiences in daily living among the geriatric patients and their level of Depression**

Parameters		Level of Depression						Chi square test
		Normal		Mild depressives		Severe depressives		
		n	%	n	%	n	%	
1.Do exercise?	no	15	18.52%	31	38.27%	35	43.21%	$\chi^2=2.05P=0.36$ DF=2(NS)
	yes	1	5.26%	8	42.11%	10	52.63%	
2.Do yoga?	no	13	16.05%	32	39.51%	36	44.44%	$\chi^2=0.06P=0.97$ DF=2(NS)
	yes	3	15.79%	7	36.84%	9	47.37%	
3.Do you go for walk outside?	no	4	12.50%	11	34.38%	17	53.13%	$\chi^2=1.31P=0.52$ DF=2(NS)
	yes	12	17.65%	28	41.18%	28	41.18%	
4.Are you abandoned by your children?	no	13	19.70%	28	42.42%	25	37.88%	$\chi^2=8.17P=0.02$ * DF=2(S)
	yes	3	8.82%	11	32.35%	20	58.82%	
5.Do you have fight/tension at home?	no	14	19.44%	27	37.50%	31	43.06%	$\chi^2=2.27P=0.32$ DF=2(NS)
	yes	2	7.14%	12	42.86%	14	50.00%	
6.Do you have poor sleep at night?	no	8	15.09%	22	41.51%	23	43.40%	$\chi^2=0.30P=0.85$ DF=2(NS)
	yes	8	17.02%	17	36.17%	22	46.81%	
7.Having food daily?	no	2	13.33%	6	40.00%	7	46.67%	$\chi^2=0.09P=0.95$ DF=2(NS)
	yes	14	16.47%	33	38.82%	38	44.71%	

DF= Degrees of Freedom \* $p \leq 0.05$  significant  $p > 0.05$  not significant.