

Illiteracy, Financial Insecurity and Loneliness as Key Factors for Depression in Elderly Population of Punjab

R. Kaur¹, P. Singh² and D. Kaur³

Citation: Kaur R, Singh P and Kaur D. 2014. Illiteracy, Financial Insecurity and Loneliness as Key Factors for Geriatric Depression in Elderly Population of Punjab. Human Biology Review, 3 (3), 258-269.

¹Dr. Rajinder Kaur, Assistant Professor, Department of Human genetics, Punjabi University, Patiala -147002, Punjab, India. E mail: rajinderkaur@pbi.ac.in

²Dr. Paramvir Singh Associate Professor, Head, Department of Sports Science, Punjabi University, Patiala-147002, Punjab, India. E mail: tparamvir@yahoo.com

³Devinder Kaur, Lecturer, Public School, Mansa, Punjab, India. E mail : simrank115@gmail.com

Corresponding author: Dr. Rajinder Kaur, Assistant Professor, Department of Human genetics, Punjabi University, Patiala -147002, Punjab, India. E mail: rajinderkaur@pbi.ac.in

ABSTRACT

Geriatric depression is a common phenomenon in most of the elderly people worldwide as they all experience the same range of normal emotions. Current study is an endeavor in this context as studies on geriatric depression in Punjabi population are not available at all. A total of 210 elderly people above 60 years of age willingly participated in this study. Demographic data was collected by personal interview (after taking written consent from subjects under study). Statistical computations revealed that 11.43% elderly people suffered from severe depression. The statistical t-value (2.49) shows that there are significant differences in depression score between the rural areas and urban areas elderly population. Differences in depression between rural areas and old age homes are non-significant (t-value of 0.20) and difference in depression scores between urban and old age homes are again significant with t-value of 2.29. Results concluded that elderly people living in old age homes and rural areas are more depressed as compared to urban areas residents. Financial insecurity, loneliness, widow(er) hood and illiteracy are major contributing factors in geriatric depression in Punjabi population of India.

KEYWORDS: *Elderly people, geriatric depression, financial insecurity, illiteracy, loneliness*

INTRODUCTION

Most people are as satisfied with their lives as at any other age and enjoy their retirement, interests, families and friends. However for some elderly people challenges of advanced age become difficult to cope up. As a result they experience increasing distress, anxiety, demoralization and loneliness. In some cases increased distress is the start of mental health problems in advanced age. Widow (ere) hood, old age homes, retirement, ill health, loss of independence, female gender, past or family history of depression, poverty, lack of social support and brain changes has particular association with mental health problems among the elderly people (Bagulho 2002;Barua 2010;Blazer,1993;Cole et al 2003; Hoek and Ho,2008). A senior suffering from depression may show any of the signs viz. Change in sleep patterns, difficulty in concentrating, excessive worrying (about finance, health etc.), feeling worthless, pain, stomach problems, weight changes, withdrawing from social activities, increased use of alcohol or other drugs, fixation on death, suicidal thoughts or attempts (Beckman et al,1995;Blazer,1989;Evans and Mottram,2000). Loneliness is a significant cause of depression in seniors especially those lacking strong social network (Iiffe et al 1992;Jogenelis et al 2004;Singh et al 2009). The loss of personal identity and sense of burden are even more stressful than the actual health conditions of elderly people (McDougall et al 2007; Sandhaya, 2010; Shinkawa et al, 2003).Studies related to geriatric depression are very rare in Punjabi population of India. Present study is an effort to access the depression in elderly Punjabi people.

Objectives

- To calculate the frequency distribution of geriatric depression in elderly people living in rural area, urban area and old age homes of Punjab.
- To find the association between socio-economic factors, psychological factors, behavioral factors, physical factors and geriatric depression.

DATA AND METHODOLOGY

Present study is based on 210 elderly people above 60 years of age irrespective of gender, belonging to rural area (N=70; M=18, F=52), urban area (N=70; M=46, F=24) and old age homes (N=70; M=44, F=26).Demographic data is collected randomly through personal interview. Geriatric Depression is calculated by using Geriatric Depression Scale (GDS) of

Yesavage et al. (1982). Required information collected by taking written consent from elderly people after explaining motive behind the interview.

RESULTS AND DISCUSSIONS

It is observed that only 24 individuals (11.43%) suffer from severe depression with a mean depression score of 22.25. On the other hand 104 (49.52%) geriatric people show no depression with mean score value of 5.05 whereas 56 geriatric people depicted with mild depression 9.21 and 26 elderly people comes under third category of depression i.e. towards severe depression with mean depression score of 16.30(Table 1).

Table 1 : Mean Depression Score in Geriatric People

GDS (Score Range)	No. of Sample	Percentage %	Mean Depression Value
0-9 (No Depression)	104	49.52	5.05
10-15 (Mild Depression)	56	26.67	9.21
16-19 (Towards Severe Depression)	26	12.38	16.30
20-30 (Severe Depression)	24	11.43	22.25

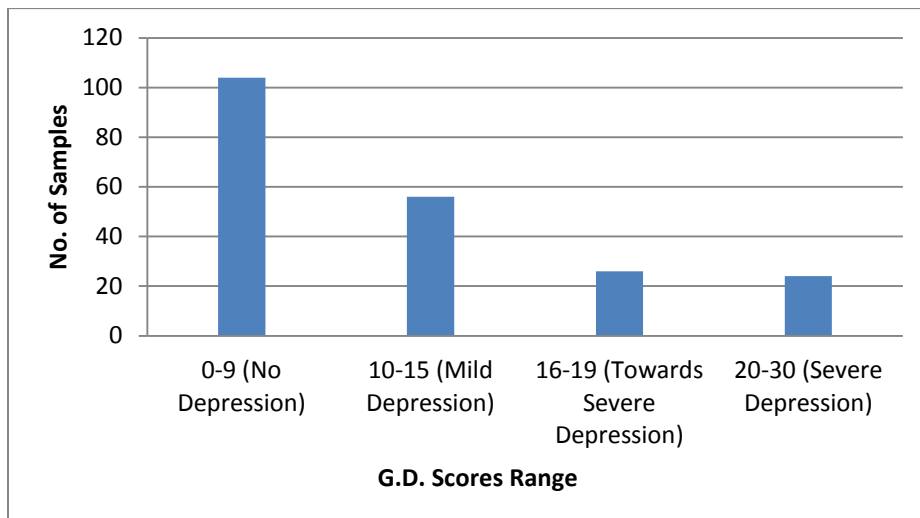


Figure: 1 Mean Depression Score in Geriatric People

So it is confirmed from the present pilot survey that 50.47 geriatric people in Punjab are suffering from depression out of which 22.65% are suffered from severe depression. (Fig.1).Observations also shows that more females (52%) are depressed as compared to their male counterparts (48%).Similar results were also observed by Palssons et al in 2001 in elderly people.

Education and geriatric depression

Table 2 shows that out of 210 subject 112 (53.33%) are totally illiterate. These illiterate subjects show highest degree of geriatric depression score of 12.90 (range 1-24). Whereas the elderly people with highest qualification i.e. doctorate degree shows nil depression with mean depression score 1. Under matric geriatric people shows mild depression with mean score value of 9.9 followed by post graduates (8.25), matriculate (8.2), 10+2 (8.2) and graduate (8.18) elderly people (Figure 2). The educational level reflects the awareness and change the attitude of geriatric people towards the life. Less education deals with less awareness and more depression and vice versa.

Table 2: Educational Levels and Geriatric Depression

Education Status	Sample Size	Percentage %	Range of Depression	Mean
Nil	112	53.33	1-24	12.91
Under Matric	20	9.52	4-22	9.9
Matric	38	18.09	2-17	8.2
12 th	10	4.76	6-12	8.2
Graduation	22	10.47	1-22	8.18
Masters	6	2.85	2-19	8.25
Doctorate	2	0.95	--	1

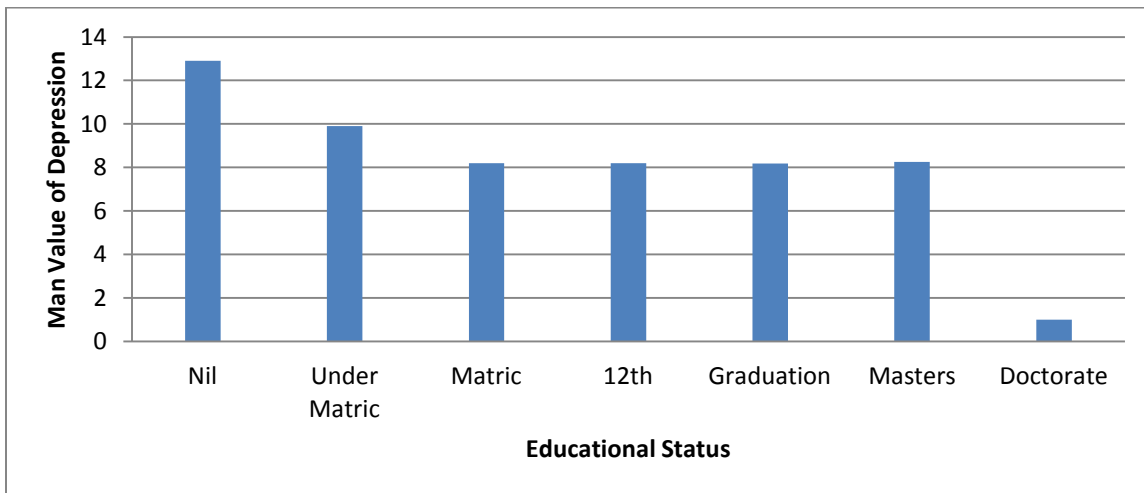


Figure: 2 Educational Levels and Geriatric Depression

Cole and Dendukuri (2003) confirms that neither the educational level, marital status, living situations nor the presence of chronic or prolonged illness leads to depression in elderly people. But our study exhibits different scene for the Punjabi elderly population.

Type of family and geriatric depression

Table 3: Type of Family and Geriatric Depression

Type of Family	Sample Size	Percentage %	Range of Depression	Mean
Nuclear Family	136	64.76	1-26	9.18
Composite Family	74	35.24	1-24	9.4

The table 3 revealed that 136 (64.76%) elderly people live in nuclear families and show depression range 1-26 with mean value of 9.18 whereas 74 (35.24%) geriatric people those live in composite families show mean value of depression 9.4 with depression range 1-24. It shows that there is no significant difference with regard to depression in geriatric people live in composite and nuclear families as both groups falls under the same mean value for depression i.e. 9.18 and 9.4 (Mild Depression) .

Spouse and geriatric depression

Table 4: Status of Spouse (alive or dead) versus Geriatric Depression

About Spouse	Sample Size	Percentage %	Range of Depression	Mean
Dead	80	38.09	5-24	12.18
Alive	130	61.91	1-22	8.5

Table 4 shows that 130 geriatric people (61.91%) have their spouse alive have no depression with mean value 8.5, while 80 (38.09%) geriatric people who have lost their spouse are depressed with mean value of depression 12.18. It might be due to the fact that geriatric people lost their partner with whom they have strong bond of emotions and shared most of their life. They had many life experiences together so they felt themselves in isolation and loneliness which leads to depression.

Job and geriatric depression

Type of job in geriatric people shows that 88 (41.90%) housewives and 46 (21.90%) retired government employees shows high depression with mean value of depression 14.3 and 14.95 respectively while 30 (14.28%) businessmen and 14 (6.66%) farmers are less depressed with mean value of depression 6.5 and 6.8. It might be due to the fact that government employees after retirement feels lefts aloof and apart from their professional network. As during working years the ability to keep up over house hold duties and shopping, usually done on the weekend sounds positively blissful. Suddenly, after the retirement they feel so mundane and become bored and depressed in retirement. They might also have depression over finances. Similarly, housewives in old age feel more depressed might be due to hormonal imbalance, social isolation and declining physical abilities or activities.

Table 5: Type of Job versus Geriatric Depression

Type of Job	Sample Size	Percentage %	Range of Depression	Mean
House Wife	88	41.90	2-26	14.3
Private Job	32	15.23	0-22	10.37
Government Job(retired)	46	21.90	1-19	14.95
Business	30	14.28	2-22	6.5
Farmer	14	6.66	1-18	6.8

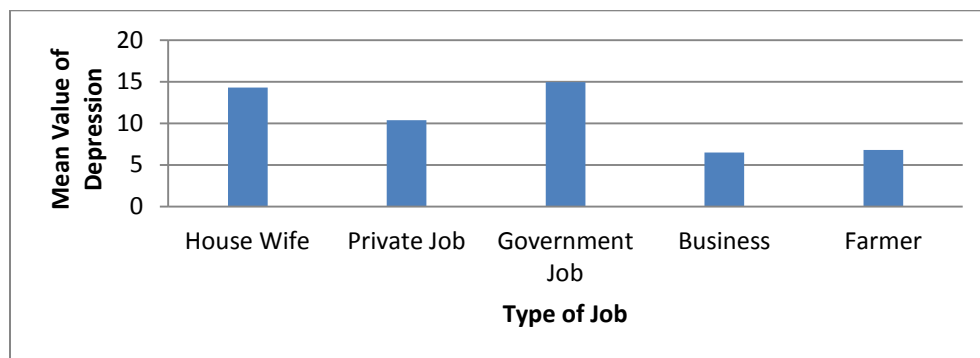
**Figure 3: Type of Job versus Geriatric Depression****Recreation and geriatric depression**

Table 6 shows that 24 (11.43%) geriatric people choose to spend their time with grand children as recreational activity shows higher depression(mean value 11.8) while others visit religious places (9.4), parks (10.71) and Saath (8.6) show mild depression whereas T.V. watchers (7.6) shows no depression, (Figure 4).

Table 6: Type of Recreation versus Geriatric Depression

Type of Recreation	Sample Size	Percentage %	Range of Depression	Mean
Grand Children	24	11.43	2-22	11.8
Religious Place	82	39.05	4-24	9.4
T.V.	16	7.62	5-17	7.6
Park	14	6.67	4-22	10.71
Any Other	36	17.14	2-18	10.9
Saath	16	7.62	5-12	8.6
Club	22	10.48	5-22	11.3

So it is analyzed that the geriatric people who spend their time with grand children are more depressed, might be behavior of grand children often make it extremely difficult for elderly people to come to their terms which results in irritating moods and feeling of isolation and loneliness leads to depression.

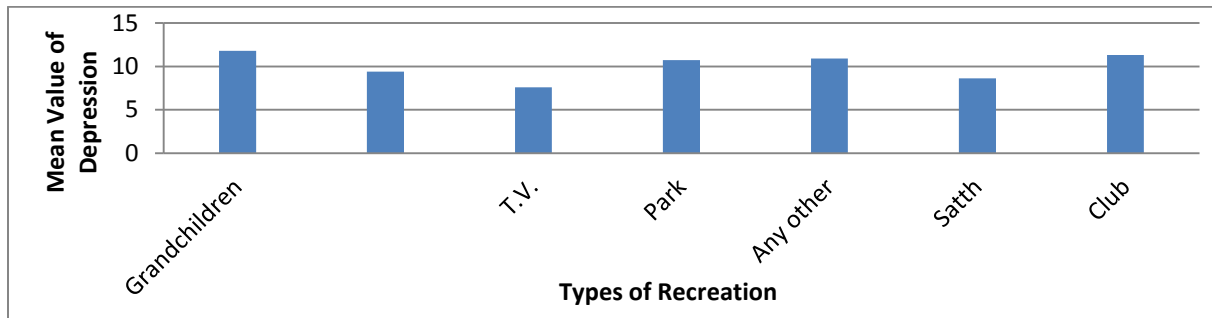


Figure 4: Type of Recreation versus Geriatric Depression

Table 7: Exercise versus Geriatric Depression

About Exercise	Sample Size	Percentage %	Range of Depression	Mean
Yes	90	42.86	0-22	8.4
No	120	57.14	0-24	10.61

Exercise and geriatric depression

Daily activities of elderly people are checked to understand exercise pattern in them in the form of 'Yes' or 'No' response. It is observed from table 7 that 90 (42.86%) geriatric people who done regular exercises have no depression with mean value of depression 8.4 while 120 geriatric people which never done regular exercise show mild depression with mean value of depression 10.61. It is due to the fact that most of the time the people who had done regular exercise are not depressed because they are health conscious and aware about the effects of the exercise at advanced age. By exercising elderly people receive physical as well as social benefits. Exercise also helps to reduce over weight and therefore risk of diabetes, blood pressure, cardio-vascular disease and many more health problems which leads to depression in geriatric people. Exercise keeps them active and delayed certain old age medical complication.

Study on relationship between physical activity and depression in elderly people by Chamcho (1991) reported that low activity level were at significantly greater risk of depression than those reported high levels of activity at advanced age. In our results we also confirm that 42.86% elderly people with active exercise behavior exhibits less depression (MDS 8.4) than 57.14% elderly people with less exercise or physical activity with higher depression (MDS 10.61).

Sleep and geriatric depression

Table 8: Sound Sleep versus Geriatric Depression

Response	Sample Size	Percentage %	Range of Depression	Mean
Yes	140	66.67	0-24	8.8
No	70	33.33	1-26	13.42

It is observed from table 8 that 140 (66.67%) geriatric people take sounds sleep and are not depressed with mean value of depression 8.8, while 70 (33.33%) geriatric people who do not sleep qualitatively shows mean value of depression 13.42 which comes under mild depression. It may be due to the fact that most of the time geriatric people revolve around the negative thoughts which lead to depression in them. Sound sleep also stimulates the brain to produce certain chemicals which positively reduces emotional stress.

Financial insecurity and geriatric depression

Table 9 revealed that 172 (81.90%) geriatric people have financial security and are not depressed with mean value of depression 9.7, while 38 (18.90%) geriatric individuals who do not have financial security shows severe depression with the mean value of depression 25.89 which is the highest among all the parameter under study.

Table 9: Financial Insecurity versus Geriatric Depression

Financial Security	Sample Size	Percentage %	Range of Depression	Mean
Yes	172	81.90	2-24	9.7
No	38	19.10	5-24	15.89

The elderly people with financial security are not depressed because they are not worried about their present and future spending's, while others without any financial security always have to beg from their family members for even a small spending and are depended on others for certain medical checkups etc.

Time spend with family and geriatric depression

Table 10: Time Spend with family versus Geriatric Depression

Time with Family	Sample Size	Percentage %	Range of Depression	Mean
Less than two hours	10	4.76	4-18	9.0
Two Hours	52	24.76	0-18	8.0
Three Hours	48	22.86	1-22	8.8
Five Hours	18	8.57	2-22	9.4
More Than Five Hours	28	13.34	7-9	8.5
None	54	25.71	4-26	13.5

Table 10 (fig. 5) shows that 54 (25.71%) geriatric people who did not spend time with family members show highest depression with mean value of 13.65 while others have nil depression with mean value of depression, for example who spend less than 2 hours (9.0), 2 hours (8.0), 3 hours (8.8), 5 hours (9.4). It is analyzed that the geriatric people who did not spend time, share happiness or sorrow feelings and problems with family members are more depressed as they feel themselves as the burden on family.

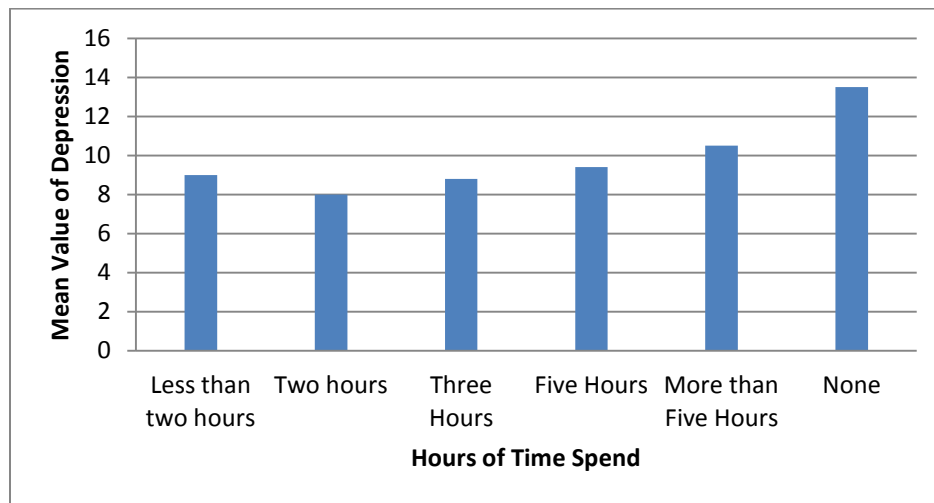


Figure 5: Time Spend with family versus Geriatric Depression

Economic status and geriatric depression (per month)

Table 11: Economic Status versus Geriatric Depression (Per month)

About Economics Status	Sample Size	Percentage %	Range of Depression	Mean
Less than Rs. 10000	134	63.81	0-20	10.0
Rs. 10000-20000	26	12.38	0-17	8.76
Rs. 20000-30000	6	2.86	2-18	8.6
Rs. 30000-40000	6	2.86	2-18	14.0
above Rs. 50000	12	5.71	1-19	7.6
None	26	12.38	5-22	14.3

Elderly people with income of Rs. 10000-20000 (n=26, 12.38%) and 20000-30000 (n=6, 2.86%) shows no depression, whereas person with no income (n=26, 12.38%) shows the severe depression with mean value of 14.3. One more category of income group 30000-40000 (n=6, 2.86%) show depression mean value of 14.0, may be due to some other reasons (family history of depression or something else)(table 11).

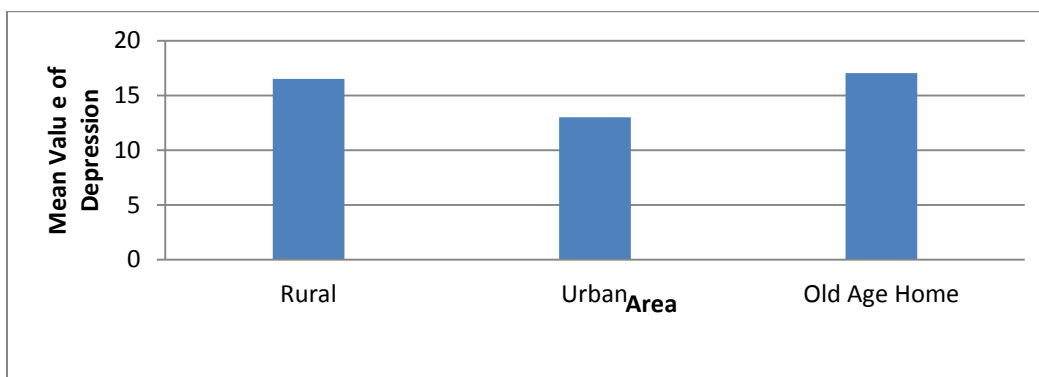
Intergroup comparison of depression in rural area, urban area and old age homes**Figure 6: Depression in Geriatric People of Old Age Home, Rural and Urban Locality**

Figure 6 shows that 42 geriatric people of rural area are depressed with mean value of depression 16.5, 18 geriatric people of urban area with mean value of depression 13 and 52 geriatric people live in old age homes show severe depression with mean value of depression 17.03. It may be due to the fact that these people live in old age home representing the end of road and loss of independence. Despite of its prevalence few elders in old age homes openly admitted that they are depressed. Some old age home residents had previous episodes of depression. A mostly geriatric person in old age home thinks they are burden for others and they felt the attitude of younger generation is unsatisfactory towards them. The social relationships of elderly people in old age homes and in families are also different as they don't have regular interaction, expression of feelings and support from the family. They felt more social isolation and loneliness. Sometimes quality of life is poor in old age homes leads to depression.

Table 12: t-value for Mean depression score (rural/urban)

Locality	Mean	± S.D.	t-Value
Rural	16.61	± 4.42	2.49*
Urban	13.12	± 2.89	

* Significant at 0.05 Level

On comparison between depressed geriatric individuals of rural and urban area, results shows (table 13) higher depression in geriatric individuals of rural area with mean value of depression 16.61 than geriatric individuals of urban area (13.12). The calculated t-value shows significant differences between the depression of rural and urban geriatric people. t- Value (2.49) is significant at the level of 0.05.

Table 13: t-value for Mean depression Score (rural / old age homes)

Locality	Mean	± S.D.	t-Value
Rural	16.61	± 4.42	0.20
Old Age Home	16.33	± 4.73	

Table 13 shows results of comparison between depressed geriatric individuals of rural and old age homes. The calculated t-value (0.20) is less than 9.6 values at 5% level, so it shows no statistical significant differences between these two categories. Hence results are no significant.

Table 14: t-value for Mean depression Score (urban /old age homes)

Locality	Mean	± S.D.	t-Value
old age Homes	13.12	± 2.89	2.29*
Urban	16.33	± 4.73	

* Significant at 0.05 Level

Table 14 on comparison between depressed geriatric people of urban and old age home results shows high depression in old age home residents with mean value of depression 16.33. The calculated t-value (t=2.29) is more than 1.96 at 5% level so it shows that difference between the depression level of geriatric people of urban and old age home are significant.

CONCLUSIONS

It is concluded from the present analysis and discussion that geriatric people living in rural area and old age homes are highly depressed as compared to the elderly people living in urban localities. Depression in elderly people of Punjab tends to be on higher side. This higher range of geriatric depression might be due to changing life style of Punjabi population, materialistic approach and professional attitude of the society. Young generation engaged themselves in jobs, and working class couples can hardly spare any time for their elders due to over busy schedule which leads to depression in elderly people. Another reason might be the shifting of rural population towards cities which de-attach the attachment of elders from their villages and basic roots and results in depression. Low educational level, financial insecurity, loneliness, widowhood, retirement, behavior of grandchildren, disturbed sleep, less physical exercise, no family interaction, comes out as major contributing factors towards the geriatric depression.

REFERENCES

- Bagulho F. Depression in elderly people. *Current Opinion in Psychiatry*, 2002, 15 (4), 417-422.
- Barua A, Ghosh MK, Basilo MA. 2010. Socio-Demographic factors of Geriatric depression. *Indian Journal of Psychological Medicine*, 32, 87-92.
- Beckman ATF, Deeg DJH, Tilburg V, Smith JH, Hooper C, Tilburg W. 1995. Major and Minor depression in later life: A study of prevalence and risk factors. *Journal of Affective Disorders*, 36, 65-75.

- Blazer D. Depression in the elderly. *The New England Journal of Medicine*.1989.132; 164-166.
- Blazer D. 1993. *Depression in later life*. Chapter 2, second edition Mosby,St Louis, Baltimore, London.
- Chamcho TC, Roberts E, Lazarus NB, Kaplan GA, Choen RD. 1991. Physical activity and depression. *American Journal of Epidemiology*, 134(2); 220-231.
- Cole MG, Dendukuri N. 2003. Risk factors for depression among elderly community subjects: A systematic Review and Meta analysis. *The American Journal of Psychiatry*, 160, 1147-1156.
- Evans M, Mottram P. 2000. Diagnosis of depression in elderly patients. *Advances in Psychiatric Treatment*, 6; 49-56.
- Hoek KE, Ho R. 2008. The many faces of Geriatric depression. *Current opinion in Psychiatry*, 121; 540-545.
- Iiffe S, See TS, Haines A, Gallivian S, Morgan P, Goldenberg B. 1992.Are elderly people living alone at risk group? *British Medical Journal*, 305; 1001-1004.
- Jongenelis K, Pot Eisses AMH, Kluiters H, Ribbe MW. 2004. Prevalence and risk indicators of depression in elderly nursing home patients. *Journal of affective disorders*, 83(2-3); 135-142.
- Mcdougall FA, Mathews FE, Kaval K, Dewry ME, Baryne C. 2007. Elderly people with depression. *Oxford Journal of Medicine* 36(5); 562-568.
- Palsson SP, Ostling S, Skoog I. 2001. The incidence of first onset depression in a population followed from the age of 70-85.*Psychol Med*, 31:1159-1168
- Sandhaya GI. 2010. Geriatric depression and related factors- A cross sectional study from a rural community in South Kerala. *Journal of the Indian Academy of Geriatrics*. 6 (2), 61-63.
- Shinkawa M, Yamaya M, Ohru T, Arai H, Sasaki H. 2003. Depression in elderly people. *Geriatrics and Gerontology International*. 2 (4); 215-216.
- Singh A, Misra N. 2009. Loneliness, depression and Sociability in old age. *Indian Psychiatry Journal* 18 (1); 51-55.
- Yesavage, J. A., T. L. Brink, et al. 1982. Development and validation of a geriatric depression screening scale: a preliminary report. *J Psychiatr Res* 17(1); 37-49.