

## A Study to Assess the Level of Anxiety among Geriatrics in Selected Villages at Puducherry

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### ABSTRACT

Anxiety was the body response to panic and agony. People with anxiety will have difficulty in performing their daily activities. Some of the symptoms of anxiety are difficulty in breathing, sweating, nausea, digestion problems and obsessive thoughts. Anxiety affects the elder people more than depression. Anxiety increases the likelihood for disability, decrease in cognition, socialization and have poor quality of life. World health organization estimated that in India 7.5% of people are suffering from mental illness and 38 million are suffering from anxiety disorders. The descriptive survey approach was used in this study. Purposive sampling technique was used for the selection of subjects. We observed that except educational status other variables such as age, income, gender, religion, occupational status and support of the family were non-significant. It shows that majority of the subjects had mild level of anxiety.

### Keywords:

Anxiety, Elderly people, Puducherry, level of anxiety, Association with Anxiety

### 1.Introduction

Worldwide anxiety is one of the most common mental disorder(1). In developed countries the elderly population above 60 years is increasing by 45 percent from 2013 to 417 million in 2050 whereas in developing countries, it is expected to increase upto 1.6 billion in 2050(2). Anxiety was the body response to panic and agony. People with anxiety will have difficulty in performing their daily activities. Most of them will suffer from more than one mental disorder. Some of the symptoms of anxiety are difficulty in breathing, sweating, nausea, digestion problems and obsessive thoughts. Anxiety affects the elder people more than depression. In elderly people prevalence of Anxiety symptoms are common in both community and clinical samples(3). Anxiety in late life is associated to poor physical and psychosocial functioning of individual(4). Anxiety increases the possibility for disability, decrease in cognition, socialization and have poor quality of life(5).

### 2. Need for the study

World health organization estimated that in India 7.5% of people are suffering from mental illness and 38 million are suffering from anxiety disorders.

In a recent study in India, 197.3 million persons are suffering from mental disorder and 44.9 million people have anxiety disorders(6). Hence, we decided to conduct a study on anxiety in elderly population in a selected urban area of Puducherry.

### 3. Materials and Methods

The descriptive survey approach was used in this study. The study population includes both male and female in the age group of 60 years to > 89 years were selected according to the criteria. All participants were Indians and lived in Puducherry. The sample size of 450 geriatric people residing in home was selected. Purposive sampling technique was used for the selection of subjects.

#### Sampling Criteria

##### 1. Inclusion Criteria

- Geriatric people who are willing to participate in the study
- Geriatric people who are present during the time of data collection
- Age criteria between 60 to > 89 years
- People who can understand Tamil

##### 2. Exclusion Criteria

- Geriatric people who are mentally unstable
- People who are not willing to participate
- People who are not present the time of data collection
- People who can't understand Tamil
- Subjects having predominantly commercial activity

### 4. Result

**Table 1:** Frequency and percentage distribution of level of anxiety among subjects in a selected Village at Puducherry.

N = 250

Anxiety	Mild (≤50%)		Moderate (51 – 75%)		Severe (>75%)	
	No.	%	No.	%	No.	%
Somatic	261	58.0	121	26.89	68	15.11
Cognitive	233	51.78	118	26.22	99	22.0
Affective	278	61.78	113	25.11	59	13.11
Overall	249	55.33	135	30.0	66	14.67

Table 1 show the frequency and percentage distribution of level of anxiety among elderly. In somatic domain 261(58.0%) had mild, 121(26.89%) had moderate & 68(15.11%) had severe level of anxiety. According to cognitive domain 233(51.78%) had mild, 118(26.22%) had moderate & 99(22.0%) had severe level of anxiety. In affective domain 278(61.78%) had mild, 113(25.11%) had moderate & 59(13.11%) had severe level of anxiety among subjects. Overall anxiety among the subjects, 249(55.33%) had mild, 135(30.0%) had moderate & 66(14.67%) had severe level of anxiety.

**Table2** Distribution of mean, median, and standard deviation of anxiety among Subjects in selected Villages at Puducherry.

	<b>Maximum score</b>	<b>Minimum score</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Median</b>
Geriatric anxiety scale	3.00	1.00	2.0000	.89030	1.8241

Table 2 shows that geriatric anxiety scale maximum level of score was 3.00, minimum level of score was 1.00, the mean value was 2.00, the standard deviation was .89030. The median value was 1.8241 among subjects. It indicates that majority of the subjects had mild level of anxiety.

**Table 3:** Association of level of anxiety among old age person with their selected demographic variables.

N = 450

<b>Demographic Variables</b>	<b>Mild (≤50%)</b>		<b>Moderate (51–75%)</b>		<b>Severe (&gt;75%)</b>		<b>Chi-Square Value</b>
	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>	
<b>Age</b>							$\chi^2=2.177$ d.f=4 p = 0.703 N.S
60 – 69 years	83	18.4	111	24.7	145	32.2	
70 – 79 years	14	3.1	24	5.3	32	7.1	
80 – 89 years	10	2.2	17	3.8	14	3.1	
>89 years	-	-	-	-	-	-	
<b>Gender</b>							$\chi^2=3.088$ d.f=2 p = 0.214 N.S
Male	66	14.7	77	17.1	105	23.3	
Female	41	9.1	75	16.7	86	19.1	
<b>Religion</b>							$\chi^2=6.050$ d.f=6 p = 0.418 N.S
Hindu	94	20.9	126	28.0	163	36.2	
Christian	8	1.8	20	4.4	16	3.6	
Muslim	3	0.7	4	0.9	4	0.9	
Others	2	0.4	2	0.4	8	1.8	
<b>Educational status</b>							$\chi^2=6.559$ d.f=2 p = 0.038 S*
Illiteracy	89	19.8	120	26.7	170	37.8	
Primary education	18	4.0	32	7.1	21	4.7	
Higher secondary	-	-	-	-	-	-	
Graduation	-	-	-	-	-	-	
Post graduate							
<b>Work status before retirement</b>							$\chi^2=0.519$ d.f=4 p = 0.972 N.S
Government job	3	0.7	5	1.1	4	0.9	
Self-employment	-	-	-	-	-	-	
Coolie	74	16.4	105	23.	135	30.	

Demographic Variables	Mild (≤50%)		Moderate (51–75%)		Severe (>75%)		Chi-Square Value
	No.	%	No.	%	No.	%	
				3		0	
Unemployed	30	6.7	42	9.3	52	11.6	
<b>Marital status</b>							$\chi^2=4.169$ d.f=4 p = 0.384 N.S
Married	87	19.3	121	26.9	151	33.6	
Unmarried	-	-	-	-	-	-	
Widow	13	2.9	27	6.0	28	6.2	
Separated	7	1.6	4	0.9	12	2.7	
<b>Income status</b>							$\chi^2=3.526$ d.f=4 p = 0.474 N.S
Family support	78	17.3	120	26.7	136	30.2	
Savings	-	-	-	-	-	-	
Pension	22	4.9	27	6.0	45	10.0	
No income	7	1.6	5	1.1	10	2.2	
<b>Support</b>							$\chi^2=6.793$ d.f=6 p = 0.340 N.S
Family	82	18.2	127	28.2	139	30.9	
Friends	6	1.3	7	1.6	11	2.4	
Neighborhood	8	1.8	6	1.3	19	4.2	
No support	11	2.4	12	2.7	22	4.9	

\*p<0.05, S – Significant, N.S – Not Significant

Table 3 indicates that except educational status other variables such as age, income, gender, religion, occupational status and support of the family were non-significant. It indicates that majority of the subjects had mild level of anxiety.

Age wise distribution of level of anxiety among subjects with 60 -69 years 145(32.2%) had severe, 111(24.7%) had moderate & 83(18.4%) had mid level of anxiety. In the age group of 70-79 years 32(7.1%) had severe, 24(5.3%) had moderate and 14(3.1%) had mild level of anxiety. 80-89 years 14(3.1%) had severe, 17(3.8%) had moderate & 10(2.2%) had mild level of anxiety.

Gender wise distribution of level of anxiety among subjects with male 105(23.3%) had severe, 77(17.1%) had moderate & 66(14.7%) had mild level of anxiety. Female 86 (19.1%) had severe, 75 (16.7%) had moderate & 41(9.1%) had mild level of anxiety.

Distribution of anxiety as per religious category, Hindu 163(36.2%) had severe, 126(28.0%) were moderate & 94(20.9%) had mild level of anxiety. Christian 16(3.6%) had severe, 20(4.4%) moderate & 8(1.8%) had mild level of anxiety. In Muslim category 4(0.9%) were severe and moderate and only 3(0.7%) had mild level of anxiety.

Educational status wise distribution of anxiety among subjects with illiteracy 170(37.8%) had severe, 120(26.7%) had moderate & 89(19.8%) had mild level of anxiety. Primary education 21(4.7%) had severe, 32(7.1%) had moderate & 18(4.0%) had mild level of anxiety.

Distribution of anxiety of subjects after retirements, people with government job 4(0.9%) had severe, 5(1.1%) had moderate & 3(0.7%) had mild level of anxiety. Coolie 135(30.0%) had

severe, 105(23.3%) had moderate & 74(16.4%) had mild level of anxiety. Unemployment 52(11.6%) had severe, 42(9.3%) had moderate & 30(6.7%) had mild level of anxiety.

Level of anxiety among married persons 151(33.6%) had severe anxiety, 121(26.9%) had moderate & 87(19.3%) had mild level of anxiety. Among separated elderly persons 12(2.7%) had severe, 4(0.9%) had moderate and 7(1.6%) had mild level of anxiety.

Elderly persons income status was, people with family support 136(30%) had severe, 120(26.7%) had moderate and 78(17.3%) had mild level of anxiety. Persons receiving pension 45(10.0%) had severe, 27(6.0%) had moderate & 22(4.9%) mild level of anxiety. People without income 10(2.2%) had severe, 5(1.1%) had moderate & 7(1.6%) had mild level of anxiety.

Support wise distribution of anxiety among subjects with Family 139(30.9%) had severe, 127(28.2%) had moderate and 82(18.2%) had mild level of anxiety. Elderly with friends 11(2.4%) had severe, 7(1.6%) had moderate and 6(1.3%) had mild level of anxiety. Neighborhood 19(4.2%) had severe, 6(1.3%) had moderate and 8(1.8%) had mild level of anxiety. People with no Support 22(4.9%) had severe, 12(2.7%) had moderate and 11(2.4%) had mild level of anxiety.

### **Discussion**

In our study elderly persons in the age group of 60-69 years had severe anxiety 145(32.2%). Previously the prevalence rate of anxiety was reported to be 18.7% to 22.7%(7).

In the present study we found that male had severe anxiety 105(23.3%). In a previous study the author observed that female suffered more anxiety than male(8).

In India different cultures are followed based on religion, which depends on social values and customs. There is a relationship between religion and mental health in one's life time. Whenever people find stressful situation they go towards spiritual life. In our study Hindus had severe anxiety level 163(36.2%) and low anxiety in Muslims 4(0.9%). In a similar study they observe that elderly people suffered more anxiety(9). In another study they found people who have less religious belief suffered anxiety(10).

In a longitudinal study of elder persons recommend one in ten persons suffer from anxiety disorders(11). In the present study majority of the subjects had mild level of anxiety. In another study higher level of anxiety was observed among the elderly persons(12).

In our study regarding educational status the persons having low educational level 170(37.8%) had severe level of anxiety and statistically significant. In a similar study by Minghelli et al found that elderly persons having low educational level suffered anxiety and they found significance between anxiety and educational status(12).

The findings from the current study was variables such as age, income, gender, religion, occupational status and support of the family were non-significant. Only educational status was significant. Results from another study show that no significant differences were found between elder people with regarding age, gender, marital status, and educational achievement(13).

### **5. Conclusion**

Anxiety in elder is a public health problem, which affects the older people socially, physically and psychologically. Although in our study elderly persons experienced only less anxiety, proper health care system should be planned to improve the quality of life. Regular physical exercise was found to be beneficial in reducing the anxiety level. Life style modifications have to be advocated by family members. Nursing care should be increased and regular visit of elderly is necessary to improve their cognition level.

## References

- [1] Nadia Kadri MA, Samir El Gnaoui, Soumia Berrada, Driss Moussaoui. Prevalence of anxiety disorders: a population-based epidemiological study in metropolitan area of Casablanca, Morocco. *Ann Gen Psychiatry* 2007;6(6).
- [2] York UNN. Economic and Social Affairs. World population prospects 2013.
- [3] Bryant C, Jackson, H. and Ames, D. . The prevalence of anxiety in older adults: methodological issues and a review of the literature. *Journal of Affective Disorders*. 2008;109:233-50.
- [4] E J Lenze JCR, L M Martire, B H Mulsant, B L Rollman, M A Dew, R Schulz, C F Reynolds. The association of late-life depression and anxiety with physical disability: a review of the literature and prospectus for future research. *American Journal of Geriatric Psychiatry*. 2001(9):113-35.
- [5] Julie Loebach Wetherell SRT, Thomas L Patterson, Shahrokh Golshan, Dilip V Jeste, Margaret Gatz. Quality of life in geriatric generalized anxiety disorder: a preliminary investigation. *J Psychiatr Res*. 2004;38(3):305-12.
- [6] Dandona L. The burden of mental disorders across the states of India:The Global Burden of Disease Study 1990–2017. *Lancet Psychiatry*. 2020;7(2):148-61.
- [7] Maherra Khambaty RMP. Cultural aspects of anxiety disorders in India. *Dialogues in clinical neuroscience*. 2017;19(2):117-26.
- [8] Dorte M. Christiansen (September 9th 2015). Examining Sex and Gender Differences in Anxiety Disorders AFLaAD, Federico Durbano, IntechOpen, DOI: 10.5772/60662. Available from: <https://www.intechopen.com/books/a-fresh-look-at-anxiety-disorders/examining-sex-and-gender-differences-in-anxiety-disorders>.
- [9] Kausar Suhail SA. Correlates of death anxiety in Pakistan. *Death Stud*. 2002 Jan;26(1):39-50.
- [10] Fares Daradkeh 1 HFM. Death anxiety (Thanatophobia) among drug dependents in an Arabic psychiatric hospital. *The American Journal of Drug and Alcohol Abuse* 2011 May;37(3).
- [11] Beekman AT BM, Deeg DJ, van Balkom AJ, Smit JH, de Beurs E, van Dyck R, van Tilburg W. Anxiety disorders in later life: a report from the Longitudinal Aging Study Amsterdam. *Int J Geriatr Psychiatry*. 1998 Oct;13(10):717-26.
- [12] Beatriz Minghelli BT, Carla Nunes, Ana Neves, Cátia Simões. Comparison of levels of anxiety and depression among active and sedentary elderly. *Rev Psiq Clín*. 2013;40(2):71-6.
- [13] Welzel FD. Prevalence of Anxiety Symptoms and Their Association With Loss Experience in a Large Cohort Sample of the Oldest-Old. Results of the AgeCoDe/AgeQualiDe Study. *Front Psychiatry*. 2019;10(285).