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A study to assess level of stress among elderly people in selected rural and urban areas, Puducherry

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Abstract

A study to assess level of stress among elderly people with stated objectives to assess the level of stress of elderly people, and to find out the association between the level of stress, of elderly people with demographic variables. The research approach selected for the study was a quantitative research approach and descriptive survey design. The study was conducted in selected rural and urban areas at Puducherry. Total 100 samples were selected (50 rural areas and 50 urban areas) by using convenience sampling technique. The findings of the study revealed that levels of stress were high in rural areas when compared to urban areas. So as a nurse we can improve the Quality of life, and reduce the level of stress among elderly people in rural areas. The researcher recommends more studies can be conducted in different settings, with different populations and different studies can be conducted among the health care professionals whose play an important role to disseminate the information to the people.

Keywords: Stress, Elderly people

Introduction

“Older age Takes away what we’ve inherited, and gives us what we’ve earned.”

- Jeanette Winterson

Ageing is a natural process and it is considered as a normal biological and an inevitable process. The process of ageing is classically depicted as one of constant and inexorable decline after reaching a peak of bodily function & efficiency around the second decade of life.

Globally elderly people constitute 11.7% in 2013 and the share of older persons aged >80 was 14%. Presently, about 2/3rd of the world's older people live in developing countries. In India 7.5% population belongs to age group above may projected to rise to 12.4% of population by the year 2026. There is sharp rise in the age-specific death rate of 20/1000 persons in the age group of 60-64 years, 80 among 75-79 years and 200 for persons aged more than 85 years.

Through this study, we can assess the stress level of elderly people living in different life situations and the impact of such situations in their lives. This study will help the community mental health nurse to plan and implement for the prevention and treatment of psycho-social ailments that the elderly faces in our community

Today Aging is a concern world over. Inadequate support from the care givers leads to lack of moral, emotional and physical support for elderly. The living condition of elderly differs in both developed and developing countries.

In the study conducted in the elderly people were asked to list out from the 24 psychological problems about the presence or absence of the problem. It was found that almost all elderly were having one or the other psychological problems. The major psychological problems reported by elderly was anxiety followed by loneliness (58.5%), isolation (55.3%), stress (52.1%), feeling of guilt (51.1%) and of affection & irritation (50%).

The general characteristics of old age are physical and psychological changes. It is common to associate elderly with disability. The elderly people face number of problems and adjust to them in varying degrees in their old age. These problems range from absence of ensured and their dependents, to ill-health, absence of social security, loss of social role and recognition, and the non-availability of opportunities for creative use of free time.

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Objectives

- To assess the level of Stress among Elderly people in selected Rural and Urban areas.
- To find out association between the level of Stress with demographic variables in selected Rural and Urban areas.

Materials and Methods

Research approach: Quantitative Research Approach

Research Design: Descriptive Survey Design

Research Variables: Stress

Study Setting: Selected Rural and Urban areas in Puducherry. The area is easily reachable and 2-10 kilometers away from the researcher’s institution.

Population: All the Elderly People residing in Rural and Urban areas at Puducherry.

Sample

Elderly People residing in selected Rural and Urban areas at Puducherry who fulfill inclusion criteria and available during the period of study.

Sample Size: 100 elderly people (50 in rural areas and 50 in urban areas).

Calculation of Sample Size

It is calculated by power analysis. Sample size was calculated using previous study findings percentage (90.5%) and expected to increase by 35% with absolute error 10% and power of the study 95%

Sampling technique

Convenience sampling technique.

Data Collection Procedure

- Formal permission was obtained from the concerned authority. Data was collected for the period of 4 weeks.
- The researcher introduced herself and explained the purpose of the study and asked their willingness to

participate in this study. The study was conducted on 100 elderly people from urban and rural areas based on convenience sampling technique.

- The Participants were fully informed of the study objectives and informed written consent was obtained.
- The researchers were assured that their data would be treated anonymously and the confidentiality would be guaranteed. The researcher collected the information from the elderly people by survey method (interview schedule and also self-administered module was followed).
- Initially the researcher covered 10 areas (5 Rural and 5 Urban) out of which each area consists of 10 subjects who fulfilled the inclusion criteria were selected.
- In a day, an average of 3-4 samples were collected by using standardized tool like Perceived Stress Scale, Carver Brief cope scale and Whoqol Scale to assess Stress and questions to collected the data regarding socio demographical variables were added.
- Each participant took 1 hour and 15 minutes to complete the questionnaire it took 15 days to complete 50 Elderly people in the rural areas. Similarly same method was followed and it took another 15 days to complete the survey among elderly people in urban areas.
- Elderly people were encouraged to ask questions as needed and it was clarified.

Validity

The tool was validated by experts in the field of Psychiatric Nursing, Psychologists, psychiatrist, Bio- Statisticians, etc.

Reliability

This method was used to assess the reliability of the stress, coping strategies and quality of life assessment tool. The ‘r’ value is 0.85.

Plan for data analysis

Descriptive and Inferential statistics were used to analyze the demographical data.

Results and Discussion

Table 1a: Frequency and percentage distribution of demographic variables of Age in Years, Gender, and religion among elderly people in selected Rural and Urban areas: (N=100)

Demographic Variables	Urban (n=50)		Rural (n=50)	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Age in years				
60-65 years	13	26	7	14
66-70 years	19	38	17	34
71-75 years	11	22	21	42
>75 years	7	14	5	10
Gender				
Male	19	38	19	38
Female	31	62	31	62
Religion				
Hindu	21	42	18	36
Christian	19	38	22	44
Muslim	10	20	10	20
Others	0	0	0	0

The above table depicts that distribution of demographic variables in selected rural and urban elderly people. With respect to, Out of 50 majorities of the elderly people were in the age group of 60-70 years 19 (38%) in selected urban

area, majority of the elderly persons were in the age group of 71-75 years 21 (42%) in selected rural area. In relation to the gender, Most of the elderly people were as female 31 (62%) in both the areas, whereas minority 19 (38%) of the

subjects were male. With respect to the religion nearly half of the elderly people were in the Hindu 21 (42%) in urban

area, almost 22 (44%) were in the Christian in selected rural area.

Table 1b: Frequency and percentage distribution of demographic variables of marital status, Educational status and previous occupation among elderly people in selected rural and urban areas: (N=100)

Demographic variables	Urban (n=50)		Rural (n=50)	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Marital status				
Married	36	72	39	78
Unmarried	12	24	10	20
Widow	2	4	1	2
Educational status				
Illiterate	8	16	14	28
Primary	8	16	11	22
SSLC	13	26	16	32
Intermediate	12	24	7	14
Graduate	6	12	2	4
Post graduate	3	6	0	0
Previous occupation				
House wife	8	16	11	22
Unemployed	14	28	8	16
Unskilled	12	24	17	34
Professional	3	6	2	4
Services	7	14	7	14
Retired	6	12	5	10

The above table depicts that distribution of demographic variables in selected rural and urban elderly people. With respect to, Majority of the elderly people were in the marital status was married 36 and 39(72%, 78%) in both the areas. With regard to the educational status, most of the elderly

people were in the SSLC 13 and 16 (26%, 32%) in both the areas. In relation to the previous occupation, most of the elderly people were in the unemployed 14 (28%) in urban areas, unskilled 17 (34%) were in the rural areas.

Table 1c: Frequency and percentage distribution of demographic variables of Monthly Family income, No. of children and Type of Family among elderly people in selected Rural and urban: (N=100)

Demographic variables	Urban (n=50)		Rural (n=50)	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Monthly family income				
1000-4000	18	36	22	44
5000-10000	12	24	11	22
10000-15000	10	20	8	16
>15000	10	20	9	18
No. of children				
No child	7	14	6	12
1	4	8	2	4z
2	8	16	7	14
More than 2	31	62	35	70
Type of family				
Nuclear	15	30	10	20
Joint	35	70	40	80

The above table depicts that distribution of demographic variables in selected rural and urban elderly people. With regard to, Out of 50 elderly people, most of them were in the 1000-4000 rupees 18(36%) in monthly family income in urban areas as same as 22 (44%) in rural areas. Majority of

the elderly people had more than 2 children 31 and 35(62%, 70%) in both the areas. With regard to the joint family Most of the elderly people were 35 and 40 (70%, 80%) in both the area.

Table 1d: Frequency and percentage distribution of demographic variables of Source of income, Place of Residence and Health status among elderly people in selected rural and urban areas. (N=100)

Demographic variables	Urban (n=50)		Rural (n=50)	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Source of income				
Services	8	16	3	6
Business	14	28	2	4
Agriculture	0	0	21	42
Pension	28	56	24	48

Place of residence				
Urban	50	100	0	0
Rural	0	0	50	100
Health status				
Diabetes mellitus	10	20	11	22
Hypertension	5	10	8	16
Coronary artery disease	11	22	10	20
Any previous surgery	24	48	21	42

The above table depicts that distribution of demographic variables in selected rural and urban elderly people. With regard to the 50 elderly people, nearly half of them depends pension money 28 and 24 (56%, 48%) is source of income

in both the areas. In relation to the health status majority of the elderly people were in the previous surgery 24 and 21(48%, 42%) in both the areas.

Table 1e: Frequency and percentage distribution of demographic variables of Perceived family support, and Type of family support among elderly people in selected rural and urban areas. (N=100)

Demographic variables	Urban(n=50)		Rural (n=50)	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Perceived family support				
Yes	38	76	41	82
No	12	24	9	18
Types of family support				
Psychological and emotional	18	36	14	28
Sharing household activities	20	40	30	60
Taking care of children’s others	12	24	6	12

The above table depicts that distribution of demographic variables in selected rural and urban elderly people. In relation to, Most of the elderly persons had perceived family support 38 and 41 (76%, 82%) in both the groups. Almost

nearly half of the elderly people in both areas had sharing household activities 20 and 30 (40%, 60%) in family support.

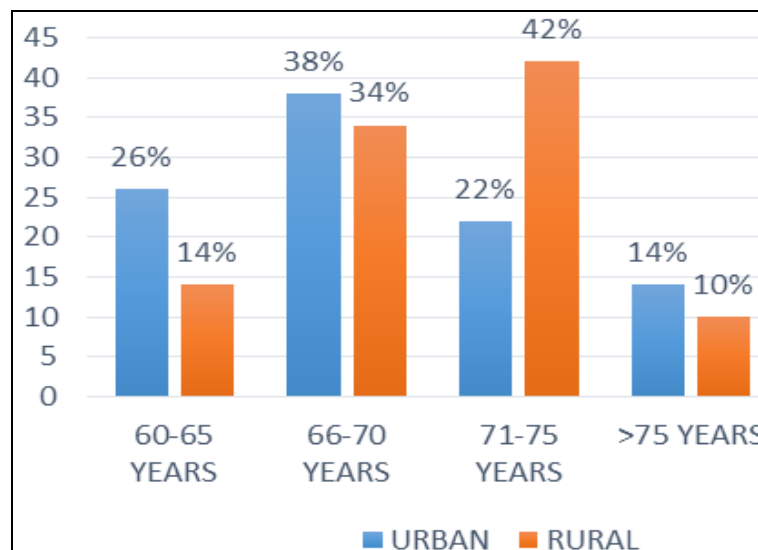


Fig 1a: Percentage distribution of age among elderly people in selected rural and urban areas.

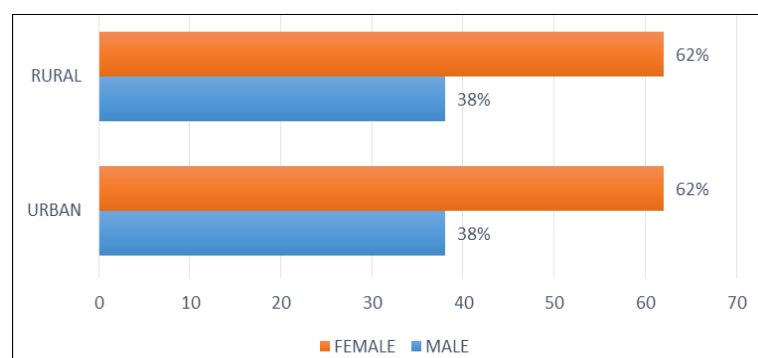


Fig 1b: Percentage distribution of Gender among elderly people in selected rural and urban areas

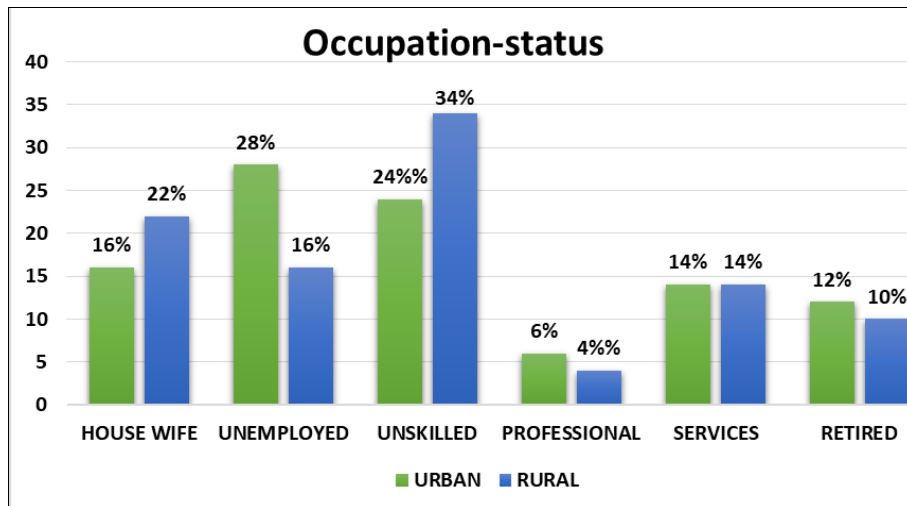


Fig 1c: Percentage distribution of Occupation Status among elderly people in selected rural and urban areas

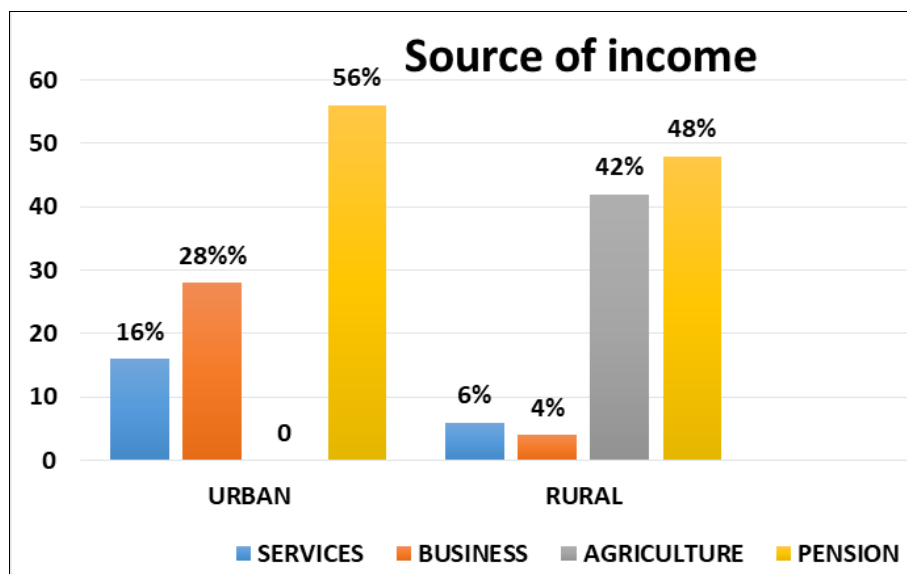


Fig 1d: Percentage distribution of Source of Income among elderly people in selected rural and urban areas

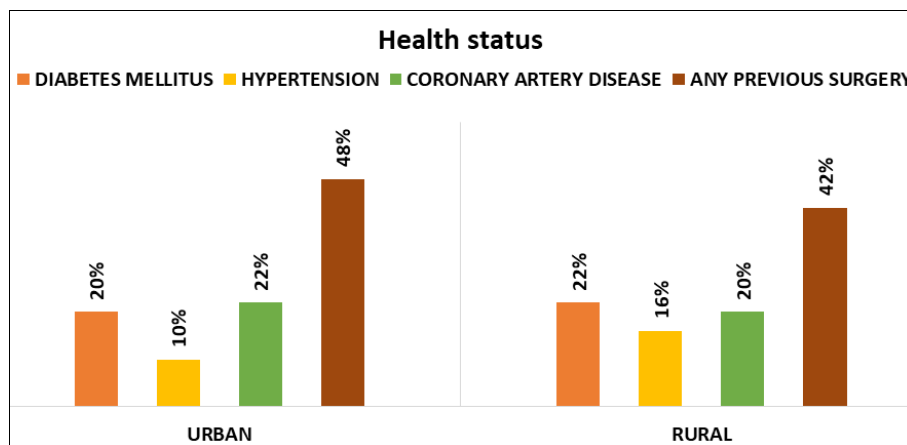


Fig 1e: Percentage distribution of Health Status among elderly People in selected rural and urban areas

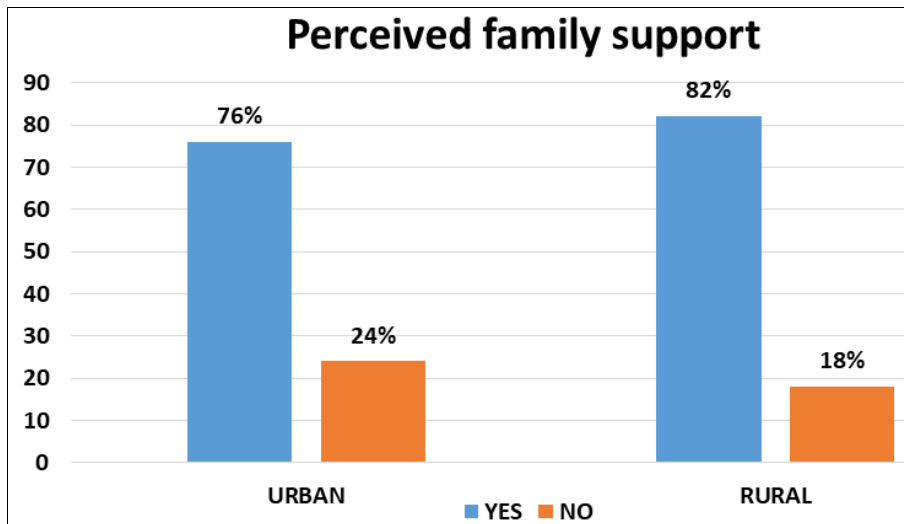


Fig 1f: Percentage distribution of Gender among elderly

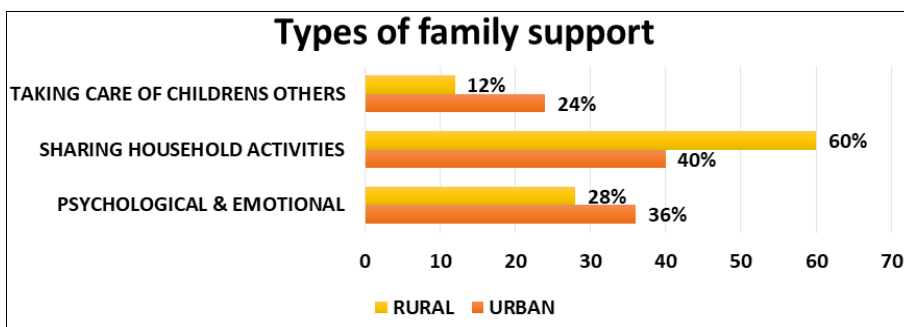


Fig 1g: Percentage distribution of Type of family support among elderly people in selected rural and urban are

Section B

Table 2a: Mean and standard deviation on the level of stress among elderly people in selected rural and urban areas. N=100

Level of stress	Urban (n=50)				Rural (n=50)			
	Frequency (n)	Percentage (%)	Mean	S.D	Frequency (n)	Percentage (%)	Mean	S.D
Low stress	3	6	2.080	0.444	0	0	2.180	0.388
Moderate stress	40	80			41	82		
High stress	7	14			9	18		
Total	50	100			50	100		

The above table revealed that mean and standard deviation of the assessment the level of stress in selected rural and urban elderly people. In urban area majority of the elderly people had moderate stress 40 (80%) and less elderly people

had high stress 7 (14%). In rural area majority of the elderly people had moderate stress 41 (82%) and less elderly people had high stress 9 (18%).

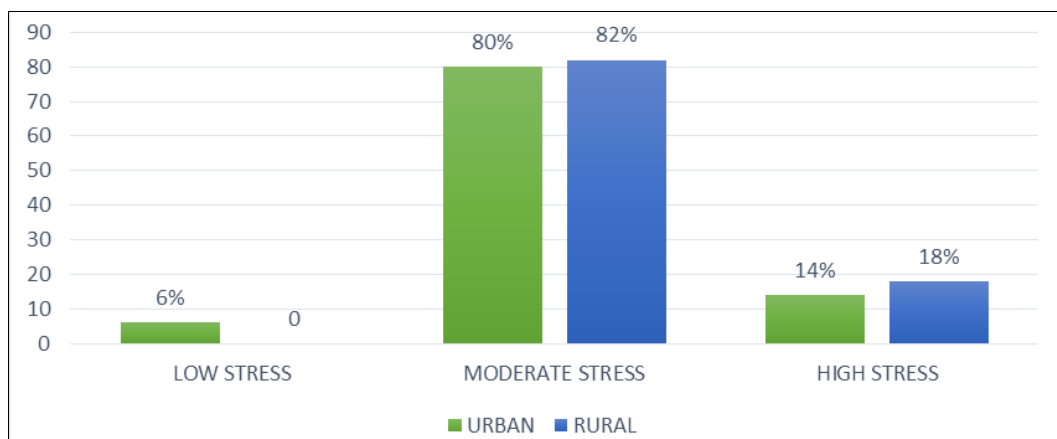


Fig 2: Percentage distribution of level of stress among elderly people in selected rural and urban areas.

Section E

Table 2b: Association between the levels of stress with demographic variables among elderly people in selected urban areas (N=50)

Demographic Variables	Urban area (n=50)						χ^2	Df	P-Value
	Low		Moderate		High				
	N	%	N	%	N	%			
Age in years							2.43	6	0.042
60-65 years	0	0	11	84.6	2	15.4			
66-70 years	2	10.5	14	73.7	3	15.8			
71-75 years	1	9.1	9	81.8	1	9.1			
>75 years	0	0	6	84.7	1	14.3			
Gender							.102	2	0.950
Male	1	5.3	15	78.9	3	15.8			
Female	2	6.5	25	80.6	4	12.9			
Religion							1.37	4	0.048
Hindu	2	9.5	16	76.2	3	14.3			
Christian	1	5.3	15	78.9	3	15.8			
Muslim	0	0	9	90	1	10			
Others	0	0	0	0	0	0			
Marital status							2.68	4	0.613
Married	2	5.6	30	83.3	4	11.1			
Unmarried	1	8.3	9	75	2	16.7			
Widow	0	0	1	50	1	50			
Educational status							7.36	10	.009
Illiterate	1	12.5	5	62.5	2				
Primary	1	12.5	5	62.5	2				
SSLC	1	7.7	10	76.9	2				
Intermediate	0	0	12	100	0				
Graduate	0	0	5	83.3	1				
Postgraduate	0	0	3	100	0				
Previous occupation							6.04	10	0.012
House wife	0	0	7	87.5	1	12.5			
Unemployed	2	14.3	9	64.3	3	21.4			
Unskilled	1	8.3	9	75	2	16.7			
Professional	0	0	3	100	0	0			
Services	0	0	6	85.7	1	14.3			
Retired	0	0	6	100	0	0			
Monthly family income							3.10	6	0.795
1000-4000	2	11.1	13	72.2	3	16.7			
5000-10000	1	8.3	10	83.3	1	8.3			
10000-15000	0	0	8	80	2	20			
>15000	0	0	9	90	1	10			
No. of children							4.03	6	0.072
No child	1	14.3	5	71.4	1	14.3			
1	0	0	3	75	1	25			
2	1	12.5	5	62.5	2	25			
More than 2	1	3.2	27	87.1	3	9.7			
Type of family							.686	2	0.710
Nuclear	1	6.7	11	7.33	3	20			
Joint	2	5.7	29	82.9	4	11.4			
Source of income							3.74	4	0.442
Services	0	0	7	87.5	1	12.5			
Business	2	14.3	9	64.3	3	21.4			
Agriculture	0	0	0	0	0	0			
Pension	1	3.6	24	85.7	3	10.7			
Place of residence							-	-	-
Urban	3	6	40	80	7	14			
Rural	0	0	0	0	0	0			
Health status							6.56	6	0.006
Diabetes mellitus	1	10	7	70	2	20			
Hypertension	0	0	5	100	0	0			
Coronary artery disease	1	9.1	9	81.8	1	9.1			
Any previous surgery	1	4.2	19	79.2	4	16.7			
Perceived family support							8.54	2	0.005
Yes	3	7.9	31	81.6	4	10.5			
No	0	0	9	75	3	25			
Types of family support							11.9	4	0.002

Psychological and emotional	1	5.6	14	77.8	3	16.7			
Sharing household activities	2	10	15	75	3	15			
Taking care of children's others	0	0	11	91.7	1	8.3			

$p < 0.05$, significant and $**p < 0.001$, highly significant

The above table represents Association between the levels of stress among elderly people with demographic variables in selected urban area. It was statistically found that the age,

religion, educational status, previous occupation, health status, perceived family support and types of family support had significant association at the level of $p < 0.05$.

Table 2c: Association between the levels of stress with demographic variables among elderly people in selected rural areas. N=50

Demographic Variables	Rural area (n=50)				χ^2	Df	p-value
	Moderate		High				
	N	%	N	%			
Age in years							
60-65 years	4	57.1	3	42.9	5.40	3	0.045
66-70 years	13	76.5	4	23.5			
71-75 years	19	90.5	2	9.5			
>75 years	5	100	0	0			
Gender							
Male	14	73.7	5	26.3	1.43	1	0.205
Female	27	87.1	4	12.9			
Religion							
Hindu	15	83.3	3	16.7	.049	2	0.976
Christian	18	81.8	4	18.2			
Muslim	8	80	2	20			
Others	0	0	0	0			
Marital status							
Married	33	84.6	6	15.4	4.76	2	0.092
Unmarried	8	80	2	20			
Widow	0	0	1	100			
Educational status							
Illiterate	11	78.6	3	21.4	3.21	4	0.522
Primary	8	72.7	3	27.3			
SSLC	15	93.8	1	6.2			
Intermediate	5	71.4	2	28.6			
Graduate	2	100	0	0			
Previous occupation							
House wife	8	72.7	3	27.3	10.0	5	0.004
Unemployed	6	75	2	25			
Unskilled	17	100	0	0			
Professional	1	50	1	50			
Services	4	57.1	3	42.9			
Retired	5	100	0	0			
Monthly family income							
1000-4000	18	81.8	4	18.2	.556	3	0.906
5000-10000	9	81.8	2	18.2			
10000-15000	6	75	2	25			
>15000	8	88.9	1	11.1			
No. of children							
No child	5	83.3	1	16.7	1.48	3	0.687
1	1	50	1	50			
2	6	85.7	1	14.3			
More than 2	29	82.9	6	17.1			
Type of family							
Nuclear	7	70	3	30	1.22	1	0.249
Joint	34	85	6	15			
Source of income							
Services	1	33.3	2	66.7	8.89	3	0.006
Business	1	50	1	50			
Agriculture	18	85.7	3	14.3			
Pension	21	87.5	3	12.5			
Place of residence							
Urban	0	0	0	0	-	-	-
Rural	41	82	9	18			
Health status							
Diabetes mellitus	7	63.6	4	36.4	6.30	3	0.047
Hypertension	7	87.5	1	12.5			

Coronary artery disease	9	90	1	10			
Any previous surgery	18	85.7	3	14.3			
Perceived family support					.353	1	0.483
Yes	33	80.5	8	19.5			
No	8	88.9	1	11.1			
Types of family support							
Psychological and emotional	11	78.6	3	21.4	10.2	2	0.003
Sharing household activities	24	80	6	20			
Taking care of children's others	6	100	0	0			

$p < 0.05$, significant and $***-p < 0.001$, highly significant

The above table represents Association between the levels of stress among elderly people with demographic variables in selected rural area. It was statistically found that the age, educational status, health status, source of income and types of family support, had significant association at the level of $p < 0.05$.

Conclusions

The result revealed that majority of the elderly people had moderate stress 40 (80%) and less elderly people had high stress 7 (14%). In selected rural area majority of the elderly people had moderate stress 41 (82%) and less elderly people had high stress 9 (18%). The results shows p-values were highly significant. Association between the level of stress among elderly people with demographic variables in selected urban area, It was statistically found that the age, religion, educational status, previous occupation, health status, perceived family support and types of family support, had significant association at the level of $p < 0.05$. Association between the level of stress among elderly people with demographic variables in selected rural area, It was statistically found that the age, educational status, health status, source of income and types of family support, had significant association at the level of $p < 0.05$.

Conflict of Interest

Not available

Financial Support

Not available

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