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A comparative study to assess the level of stress, coping strategies and quality of life among elderly people in selected rural and urban areas, Puducherry

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Abstract
A comparative study with stated objectives to assess the level of stress, coping strategies and quality of life of elderly people, to compare the stress, coping strategies and quality of life of elderly people, to identify the relationship between stress, coping strategies and quality of life of elderly persons, and to find out the association between the level of stress, coping strategies and quality of life of elderly people with demographic variables. The research approach selected for the study was 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 level of stress and quality of life among elderly people 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 population and different studies can be conducted among the health care professionals who plays important role to disseminate the information to the people.

Keywords: Stress, coping strategies, quality of life and 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 persons live in developing countries. In India 7.5% population belong to age group above may projected to rise to 12.4% of population by the year 2026. There is sharp rise in 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.

For a developing country like India, rapid growth in the number of elderly population creates issues that hardly perceived yet; this must be addressed for social and economic development. Elders suffer from desires, psychological problems of usefulness and abundant. Women react in different ways in this diminishing role.

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

Objectives
- To assess the level of Stress among Elderly people in selected Rural and Urban areas.
- To find out the Coping strategies used by the Elderly people in selected Rural and Urban areas.

- To assess the quality of life among Elderly people in selected Rural and Urban areas.
- To compare the Stress, Coping strategies and Quality of life among Elderly people in selected Rural and Urban areas.
- To identify the relationship between Stress, Coping strategies and Quality of life among Elderly people in selected Rural and Urban areas
- To find out association between the level of Stress, Coping strategies and Quality of life among Elderly people with demographic variables in selected Rural and Urban areas.

Research Methodology
Research Approach: Quantitative Research Approach.
Research Design: Descriptive Survey Design.
Research Variables: Coping strategies.

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 error10% and power of the study 95%.

$$n = \frac{4pq}{d^2}$$

P = proportion
q = [100-p]
d^2 = absolute error 10%

$$n = \frac{4 \times 90.5 \times 9.5}{81}$$

n = 42 samples
Rural = 42 to 50 samples
Urban = 42 to 50 samples

Sampling technique: Convenience sampling technique.

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 error10% and power of the study 95%

$$n = \frac{4pq}{d^2}$$

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n = 42 samples
Rural = 42 to 50 samples
Urban = 42 to 50 samples

Description of tool
After the Extensive search of the literature, the researcher identified the standardized tools for the assessment of Stress, Coping strategies and Quality of life. It was a Self-administered and also administered by the researcher. It consists of four sections.

Section A: Socio demographic variables of elderly people.

Section B: perceived stress scale was used for assessment of Stress among elderly people.

Section C: Brief COPE scale was used for assessment of coping strategies among elderly people.

Section D: WHO - Quality of life-BREF scale was used for assessment of Quality of life among elderly people.

Section A: Socio demographic variables of elderly people: The demographic variables included such as age in years, gender, religion, marital status, educational status, previous occupation, monthly family income, number of children, type of family, source of income, place of residence, health status, perceived family support and types of family support.

Section B: Perceived stress scale for assessment of stress among elderly people: A standardized perceived stress scale was used to assess the level of stress among elderly people in selected Rural and Urban areas, Puducherry. A five-point scale with 10 items. Each question has 5 options and total score was 40.

Interpretation of scores

Level of stress	Score	Percentage
Low stress	0-13	<35-50%
Moderate stress	14-26	>50-75%
High perceived stress	27-40	>75%

Section C: Brief COPE scale is an instrument used to measure the coping strategies
A standardized tool Brief cope scale by CARVER C.S. 1997 used to cope with stress. It consists of 14 scales of 2 items each measuring conceptually different coping styles.
Response option range from 1 (I haven't been doing it all) to 4 (I have been doing this a lot). The author recommends no overall score on this measure but generating dominant coping styles for a given person such as Self-distraction, Active coping, Denial, Substance use, Use of emotional support, Use of instrumental Support, Behavioral disengagement, venting, Positive reframing, Planning, Humor, Acceptance, Religion, and self-blame.

Section D: World Health Organization Quality of Life-BREF Scale: It is an instrument to measure Quality of Life. It was a self-administered interview module and also administered by the researcher. It produces scoring relating to 4 large domains, namely Physical domain, psychological domain, social relationships domain and the environment domain. This scale contains a total of 26 questions five point rating scale, 5 options for each question and rated as follows. Total score is 130.

Scoring Keys for Rating Scales

Table 1: Scoring keys for rating scales

Very poor	Very dissatisfied	Not at all	Never	1
Poor	Dissatisfied	A little	Seldom	2
Neither good nor poor	Neither satisfied nor dissatisfied	A moderate amount	Quite often	3
Good	Satisfied	Very much	Very often	4
Very good	Very satisfied	An extreme amount	Always	5

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.

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, Coping strategies and Quality of life 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.

Plan for data analysis

Descriptive and Inferential statistics were used to analyze the demographical data. The Frequency, percentage distribution, mean and standard deviation was used to assess the level of stress, coping strategies, and quality of life among elderly people. Inferential statistics like 't' test was used to compare the level of stress, coping strategies and quality of life among elderly people. Chi- square test was used to associate stress, coping strategies, and quality of life among elderly people with demographic variables.

Results and Discussion

Table 2: 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 3: 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 4: 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 5: 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 money28 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 6: 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.

Section B

Table 7: 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%).

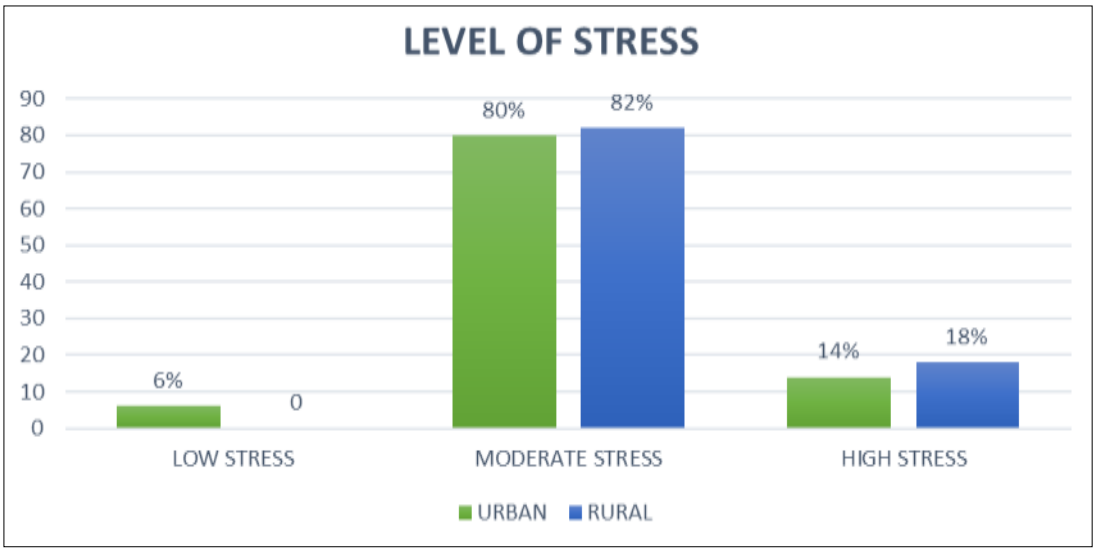

Fig 1: Percentage distribution of level of stress among elderly people in selected rural and urban areas.

Table 8: Frequency and percentage distribution of the coping strategies among the elderly people in selected rural and urban area N= 100

Coping strategies	Urban (n=50)		Mean	Rural (n=50)		Mean
	Frequency (n)	Percentage (%)		Frequency (n)	Percentage (%)	
I haven't been doing this at all	0	0	2.560	0	0	2.640
I 've been doing this a little bit	22	44		18	36	
I 've been doing this a medium Amount	28	56		32	64	
I 've been doing this a lot	0	0	Standard deviation	0	0	Standard deviation
Total	50	100		50	100	
			0.501			0.484

The above table revealed frequency and percentage distribution of the coping strategies among the elderly people in selected rural and urban area.

With respect to the urban area, majority of the participants had medium amount of coping strategies (56%) and nearly half of the participants had little bit of coping strategies (44%). With respect to the rural area, majority of the participants had medium amount of coping strategies (64%) and nearly half of the participants had little bit of coping strategies (36%).

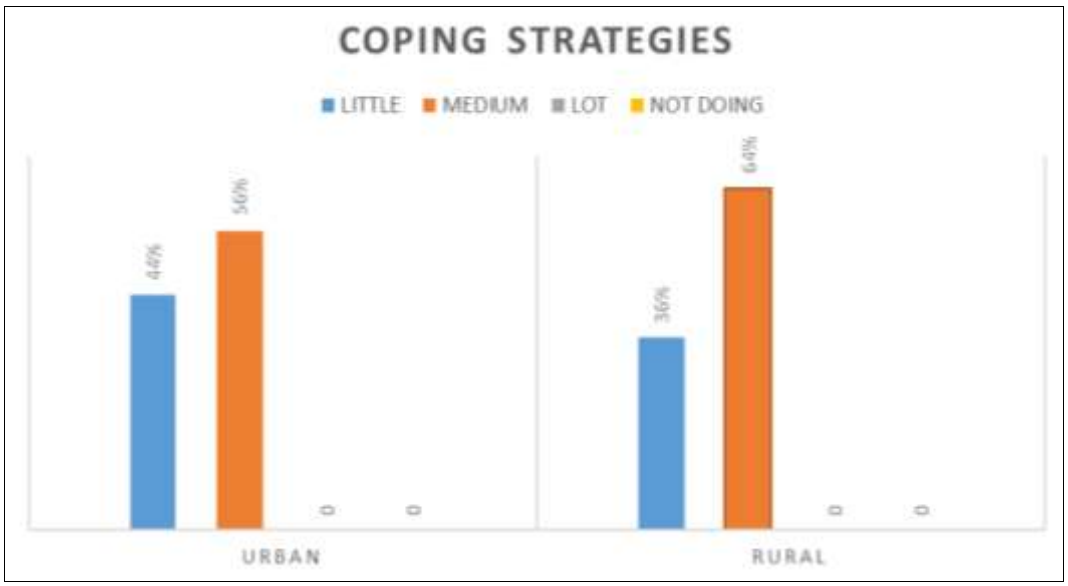

Fig 2: Percentage distribution of coping strategies among elderly people in selected Rural and Urban areas.

Table 9: Percentage scores of coping strategies used by the elderly people in selected Rural and Urban areas N=100

Coping Strategies	URBAN (n=50)			RURAL (n=50)		
	Obtained Score	% age	Mean & S.D	Obtained Score	% Age	Mean & S.D
Self –distraction	223	59.5	4.46 1.05	226	62.2	4.52 1.09
Active coping	236	66	4.72 1.22	233	65.7	4.6 1.22
Denial	226	61	4.52 1.16	242	70.2	4.84 1.20
Substance use	212	54	4.24 1.39	212	55.2	4.24 1.09
Use of emotional support	209	52.5	4.18.800	222	60.2	4.44.786
Use of instrumental support	208	52	4.16 1.09	223	60.7	4.46.930
Behavioural disengagement	219	57.5	4.38.987	215	56.7	4.30.863
Venting	208	52	4.16 1.37	239	68.7	4.78 1.07
Positive reframing	184	41.4	3.68.913	176	37.2	3.52.973
Planning	183	41.2	3.66 1.06	196	47.2	3.92 1.15
Humor	244	70	4.88 1.25	240	69.2	4.80 1.24
Acceptance	223	59.5	4.46 1.50	226	62.2	4.52 1.56
Religion	195	44.7	3.90 1.01	213	55.7	4.26.964
Self-blame	200	50	4.00 1.62	217	57.7	4.34 1.67

Maximum score -600

The above table revealed that both among the urban and rural areas percentage scores were higher in the area of Humour244 and 240 (70%&69.2%), other coping mechanisms were active coping236 and 233 (66% and 65.7%) and denial 226 and 242 (61% and 70.2%)

Frequency and percentage distribution for the assessment of the quality of life among elderly people in selected rural and urban areas. N=100

Quality of life	Urban (n=50)		Mean	Rural (n=50)		Mean
	Frequency (n)	Percentage (%)		Frequency (n)	Percentage (%)	
Very poor	0	0	3.200	0	0	3.240
Poor	8	16		7	14	
Neither poor or good	24	48		24	48	
Good	18	36	Standard deviation	19	38	Standard deviation
Very good	0	0		0	0	
Total	50	100	0.699	50	100	0.686

The above table shows Frequency and percentage distribution of the quality of life among elderly in selected rural and urban areas.

With respect to the urban area majority of the elderly people had neither poor or good in quality of life (48%) and nearly half of the elderly people had good in quality of life (36%) and less participants had poor in quality of life (16). With respect to the rural area majority of the elderly people had neither poor or good in quality of life (48%) and nearly half of the elderly people had good in quality of life (38%) and less participants had poor in quality of life (14%).

Table 10: Frequency and percentage distribution of domain scores of quality of life among rural areas N=50

Quality of life	Physical		Psychological		Social relation		Environmental	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Very dissatisfied	0	0	0	0	0	0	0	0
Dissatisfied	0	0	13	26	12	24	7	14
Neither satisfied nor dissatisfied	31	162	25	50	26	52	24	48
Satisfied	14	28	12	24	0	0	19	38
Very satisfied	5	10	0	0	12	24	0	0

The above table revealed l that physical domain most of the elderly people 31 (62%) were neither satisfied nor dissatisfied. Psychological domain, social relation domain and environmental domain majority of the elderly people 25 (50%), 26 (52%) and 24 (48%) were same as neither satisfied nor dissatisfied. the mean scores were higher in the domain of physical (21.9) and environmental health (22.2) for the rural area.

Table 11: Frequency and percentage distribution of domain scores of quality of life among elderly people in selected urban areas. N=50

Quality of life	Physical		Psychological		Social relation		Environmental	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Very dissatisfied	0	0	0	0	0	0	0	0
Dissatisfied	0	0	14	28	12	24	7	14
Neither satisfied nor dissatisfied	31	62	24	48	26	52	24	48
Satisfied	14	28	12	24	0	0	19	38
Very satisfied	5	10	0	0	12	24	0	0

The above table revealed that physical domain most of the elderly people 31(62%) were neither satisfied nor dissatisfied. With respect to Psychological domain, social relation domain and environmental domain majority of the elderly people 24(48%), 26(52%) and 24(48%) were same as neither satisfied nor dissatisfied. the mean scores were higher in the domain of physical (22.0) and environmental health (21.8) for the urban areas.

Table 12: Mean and standard deviation of domain scores of quality of life among elderly people in selected Rural and urban areas. N=100

Domains	Urban (n=50)		Rural (n=50)	
	Mean	S.D	Mean	S.D
Physical	22.0	3.51	21.9	3.54
Psychological	15.9	3.53	16.0	3.49
Social relation	8.68	3.37	8.72	3.36
Environmental health	21.8	5.46	22.2	5.38
Total	68.38	15.87	68.82	15.75

The above table reveals that the mean scores were higher in the domain of physical (22.0) and environmental health (21.8) for the urban areas. As same in the domain of physical (21.9) and environmental health (22.2) for the rural areas. The total mean score were higher among the rural areas (68.82) compared to the urban areas (68.32).

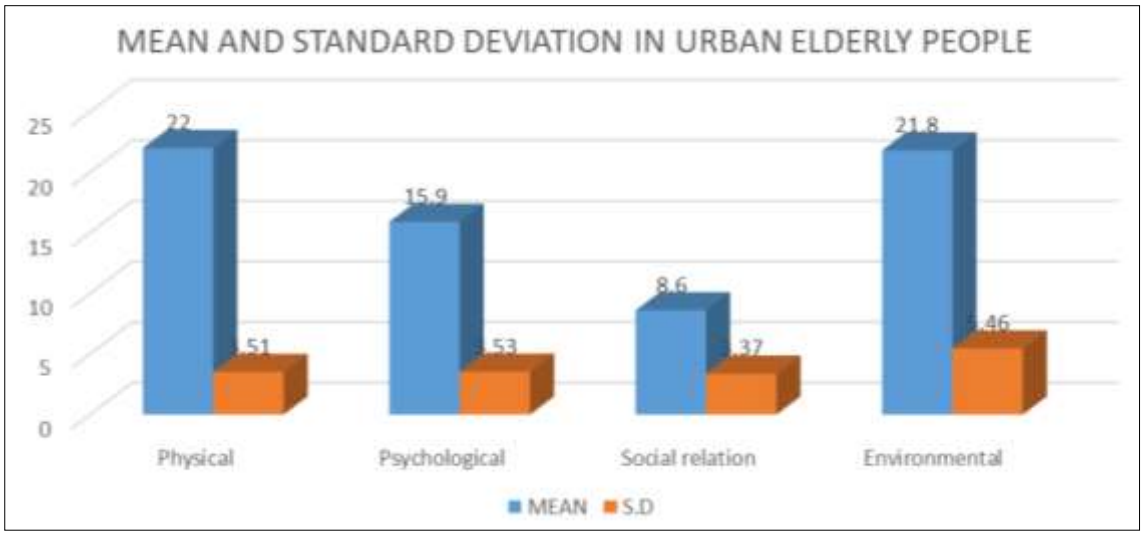

Fig 3: Mean and Standard deviation of quality of life among elderly people in urban areas

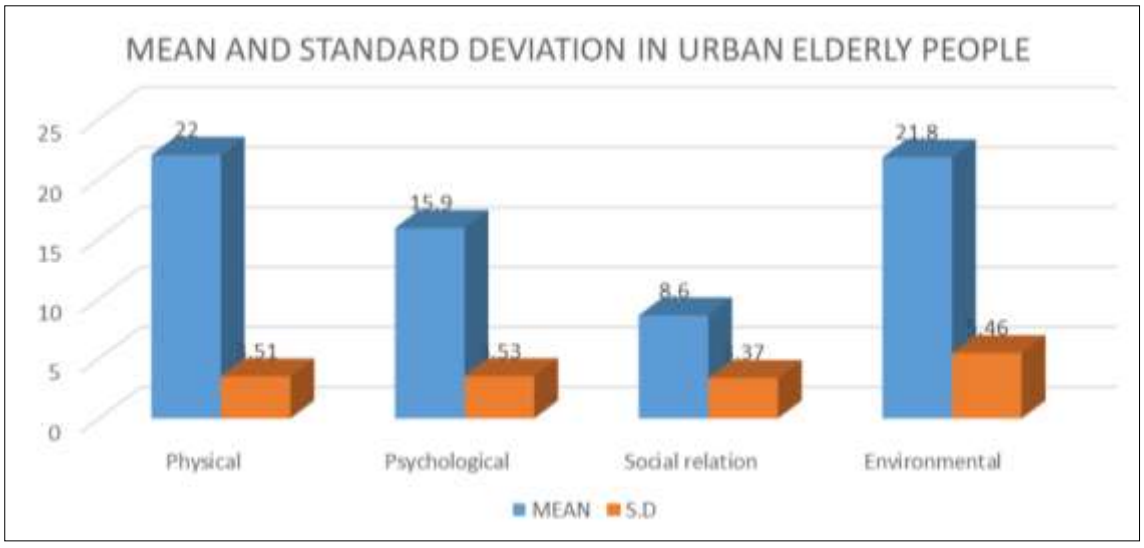

Fig 4: Mean and standard deviation of Quality of life among elderly people in rural areas

Section C

Table 13: Comparison on the stress, coping strategies and quality of life among elderly people in selected rural and urban areas. N=100

Variables	Urban (n=50)		Rural (n=50)		t-value	p-value
	Mean	S.D	Mean	S.D		
Stress	2.080	.444	2.180	.388	-1.198	0.003 (s**)
Coping	2.560	.070	2.640	.484	-.811	0.001 (s**)
Quality of life	3.200	.699	3.240	.686	-.288	0.000 (s**)

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

The above table revealed Comparison of the stress, coping strategies and quality of life of elderly people between selected rural and urban area. In mean and standard deviation of the Stress, coping and quality of life, the unpaired t –test shows the results, p-value are highly significant.

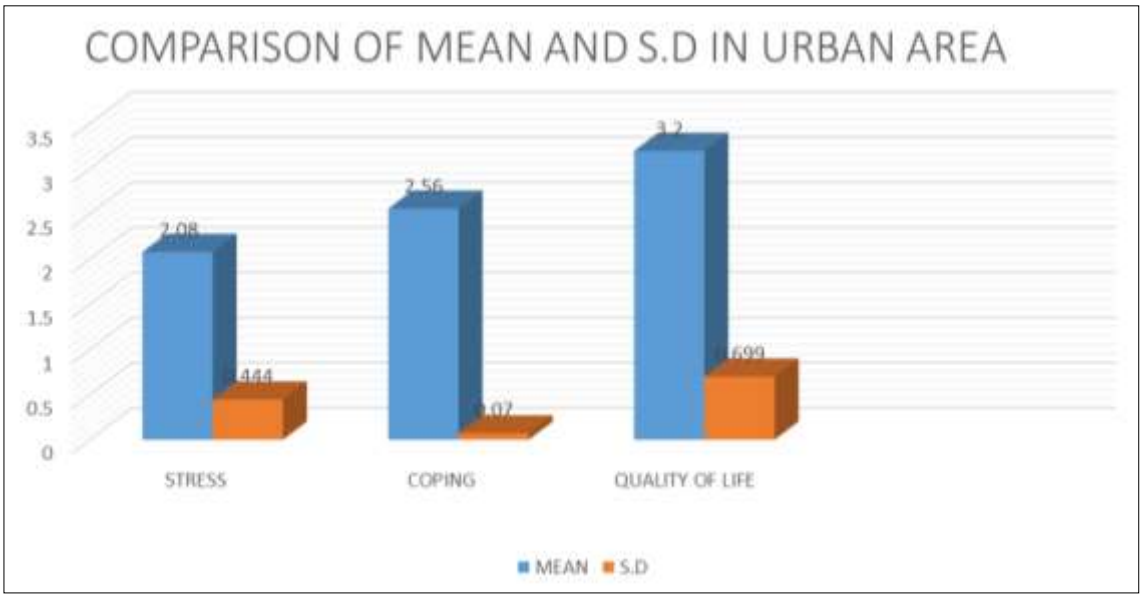

Fig 5: Comparison of mean and standard deviation in stress, coping strategies and quality of life among elderly people in selected urban areas.

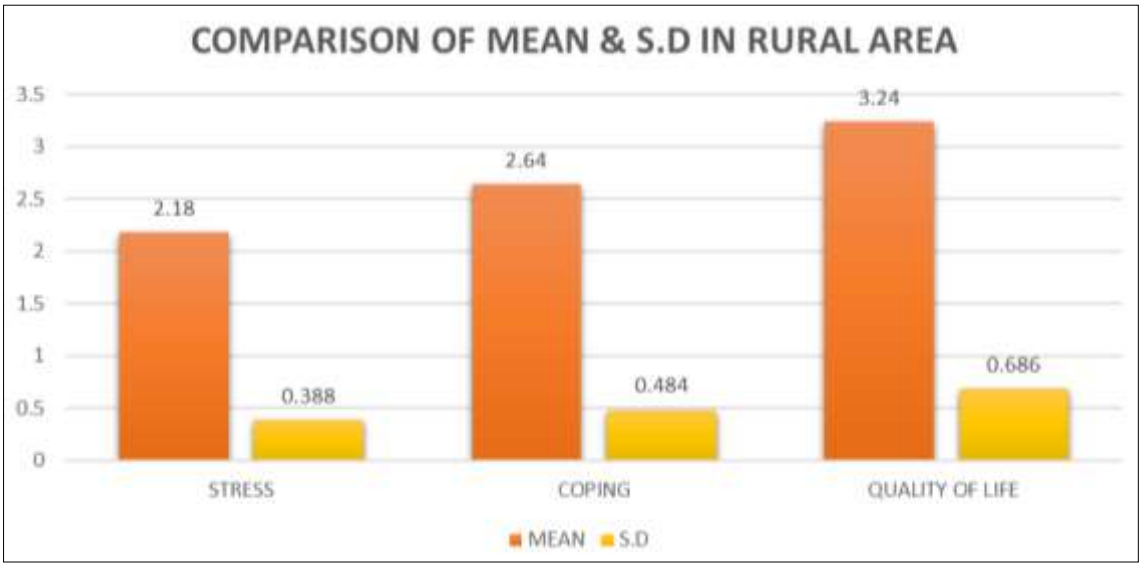

Fig 6: Comparison of mean and standard deviation in stress, coping strategies and quality of life in selected rural elderly persons.

Section D

Table 14: Correlation between the stress, coping strategies and quality of life among elderly people in selected urban areas. N= 50

Variable	Urban (n=50)			
	Mean	S.D	r- Value	p-Value
Stress & Coping	2.080	0.444	1	0.053 (s**)
Coping & Quality of life	2.560	0.501	0.70	0.031 (s**)
Quality of life & stress	3.200	0.699	0.013	0.002 (s**)

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

The above table revealed Correlation of the stress, coping strategies and quality of life of elderly people in selected urban area. Stress, coping and quality of life are indicates the positive correlations. The results shows p-value highly significant.

Table 15: Correlation between the stress, coping strategies and quality of life among elderly people in selected rural areas. N= 50

Variables	Rural (n=50)			
	Mean	S.D	r- value	p-value
Stress &coping	2.180	0.388	1	0.010 (s**)
Coping & Quality of life	2.640	0.484	0.134	0.007 (s**)
Quality of life & stress	3.240	0.686	0.141	0.000(s**)

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

The above table revealed Correlation of the stress, coping strategies and quality of life of elderly persons in selected rural area are indicates the positive correlations. The results shows p-value are highly significant.

Table 16: Association between the level 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									
60-65 years	0	0	11	84.6	2	15.4	2.43	6	0.042
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									
Male	1	5.3	15	78.9	3	15.8	.102	2	0.950
Female	2	6.5	25	80.6	4	12.9			
Religion									
Hindu	2	9.5	16	76.2	3	14.3	1.37	4	0.048
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									
Married	2	5.6	30	83.3	4	11.1	2.68	4	0.613
Unmarried	1	8.3	9	75	2	16.7			
Widow	0	0	1	50	1	50			
Educational status									
Illiterate	1	12.5	5	62.5	2		7.36	10	.009
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				
Post graduate	0	0	3	100	0				
Previous occupation									
House wife	0	0	7	87.5	1	12.5	6.04	10	0.012
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									
1000-4000	2	11.1	13	72.2	3	16.7	3.10	6	0.795
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									
No. child	1	14.3	5	71.4	1	14.3	4.03	6	0.072
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									
Nuclear	1	6.7	11	7.33	3	20	.686	2	0.710
Joint	2	5.7	29	82.9	4	11.4			
Source of income									
Services	0	0	7	87.5	1	12.5	3.74	4	0.442
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									
Diabetes mellitus	1	10	7	70	2	20	6.56	6	0.006
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									
Yes	3	7.9	31	81.6	4	10.5	8.54	2	0.005
No	0	0	9	75	3	25			
Types of family support									
Psychological and emotional	1	5.6	14	77.8	3	16.7	11.9	4	0.002
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 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.

Table 17: Association between the levels of stress with demographic variable samong 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							
Yes	33	80.5	8	19.5	.353	1	0.483
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 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 $p< 0.05$.

Table 18: Association between the Coping strategies with demographic variables among elderly people in selected urban areas. N=50.

Demographic variables	Urban Area (n=50)				χ^2	Df	P-Value
	Little bit		Medium amount				
	N	%	N	%			
Age in years							
60-65 years	7	53.8	6	46.2	5.61	3	0.006
66-70 years	7	36.8	12	63.2			
71-75 years	4	36.4	7	63.6			
>75 years	4	57.1	3	42.9			
Gender							
Male	10	52.6	9	47.4	.927	1	0.252
Female	12	38.7	19	61.3			
Religion							
Hindu	10	47.6	11	52.4	.204	2	0.903
Christian	8	42.1	11	57.9			
Muslim	4	40	6	60			
Others	0	0	0	0			
Marital status							
Married	14	38.9	22	61.1	3.10	2	0.212
Unmarried	6	50	6	50			
Widow	2	100	0	0			
Educational status							
Illiterate	6	75	2	25	11.0	5	0.005
Primary	6	75	2	25			

SSLC	4	30.8	9	69.2			
Intermediate	2	16.7	10	83.3			
Graduate	3	50	3	50			
Post graduate	1	33.3	2	66.7			
Previous occupation							
House wife	2	25	6	75			
Unemployed	9	64.3	5	35.7			
Unskilled	6	50	6	50	9.80	5	0.011
Professional	0	0	3	100			
Services	1	14.3	6	85.7			
Retired	4	66.7	2	33.3			
Monthly family income							
1000-4000	9	50	9	50			
5000-10000	4	33.3	8	66.7	2.65	3	0.449
10000-15000	3	30	7	70			
>15000	6	60	4	40			
No. of children							
No. child	3	42.9	4	57.1			
1	1	25	3	75	1.75	3	0.625
2	5	62.5	3	37.5			
More than 2	13	41.9	18	58.1			
Type of family							
Nuclear	6	40	9	60	.139	1	0.477
Joint	16	45.7	19	54.3			
Source of income							
Services	4	50	4	50			
Business	7	50	7	50	.574	2	0.751
Agriculture	11	39.3	17	60.7			
Pension	22	44	28	56.574			
Place of residence							
Urban	22	44	28	56	-	-	-
Rural	0	0	0	0			
Health status							
Diabetes mellitus	7	70	3	30			
Hypertension	2	40	3	60	4.07	3	0.051
Coronary artery disease	3	27.3	8	72.7			
Any previous surgery	10	41.7	14	58.3			
Perceived family support							
Yes	15	39.5	23	60.5	11.3	5	0.003
No	7	58.3	5	41.7			
Types of family support							
Psychological and emotional	9	50	9	50			
Sharing household activities	8	40	12	60	.419	2	0.811
Taking care of children's others	5	41.7	7	58.3			

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

The above table represents Association between the coping strategies among elderly people with demographic variables in selected urban area. It was statistically found that the age, educational status, previous occupation, health status, source of income and perceived family support, had significant association at the level of *p*< 0.05.

Table 19: Association between the coping strategies with demographic variables among elderly people in selected rural areas N=50

Demographic variables	Rural Area (n=50)				χ^2	Df	P-value
	Little bit		Medium amount				
	N	%	N	%			
Age in years							
60-65 years	2	28.6	5	71.4			
66-70 years	5	29.4	12	70.6	1.77	3	0.620
71-75 years	8	38.1	13	61.9			
>75 years	3	60	2	40			
Gender							
Male	4	21.1	15	78.9	3.97	1	0.006
Female	14	45.2	17	54.8			
Religion							
Hindu	5	27.8	13	72.2			
Christian	9	40.9	13	59.1	.828	2	0.661
Muslim	4	40	6	60			
Others	0	0	0	0			

Marital status							
Married	14	35.9	25	64.1	.632	2	0.729
Unmarried	4	40	6	60			
Widow	0	0	1	100			
Educational status							
Illiterate	8	57.1	6	42.9	8.65	4	0.003
Primary	3	27.3	8	72.7			
SSLC	7	43.8	9	56.2			
Intermediate	0	0	7	100			
Graduate	0	0	2	100			
Previous occupation							
House wife	5	45.5	6	54.5	4.35	5	0.051
Unemployed	2	25	6	75			
Unskilled	8	47.1	9	52.9			
Professional	0	0	2	100			
Services	1	14.3	6	85.7			
Retired	2	40	3	60			
Monthly family income							
1000-4000	6	27.3	16	72.7	5.78	3	0.023
5000-10000	6	54.5	5	45.5			
10000-15000	1	12.5	7	87.5			
>15000	5	55.6	4	44.4			
No.of children							
No child	2	33.3	4	66.7	5.02	3	0.031
1	2	100	0	0			
2	1	14.3	6	85.7			
More than 2	13	37.1	22	62.9			
Type of family							
Nuclear	3	30	7	70	.195	1	0.479
Joint	15	37.5	25	62.5			
Source of income							
Services	0	0	3	100	3.18	3	0.364
Business	0	0	2	100			
Agriculture	8	38.1	13	61.9			
Pension	10	41.7	14	58.3			
Place of residence							
Urban	0	0	0	0	-	-	-
Rural	18	36	32	64			
Health status							
Diabetes mellitus	3	27.3	8	72.7	1.24	3	0.743
Hypertension	4	50	4	50			
Coronary artery disease	3	30	7	70			
Any previous surgery	8	38.1	13	61.9			
Perceived family support							
Yes	14	31.1	27	65.9	.340	1	0.413
No	4	44.4	5	55.6			
Types of family support							
Psychological and emotional	5	35.7	9	64.3	2.91	2	0.232
Sharing household activities	9	30	21	70			
Taking care of children's others	4	66.7	2	33.3			

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

The above table represents Association between the coping strategies among elderly people with demographic variables in selected rural area. It was statistically found that the gender, educational status, previous occupation, monthly family income and no.of.children, had significant association at the level of $p< 0.05$

Table 20: Association between the quality of life among elderly people with demographic variables in selected urban areas. N=50.

Demographic variables	Urban Area (n=50)						χ^2	Df	P-Value
	Poor		Neither Good or Poor		Good				
	n	%	n	%	n	%			
Age in years									
60-65 years	2	15.4	3	23.1	8	61.5	12.5	6	0.050
66-70 years	1	5.3	10	52.6	8	42.1			
71-75 years	4	36.4	6	54.5	1	9.1			
>75 years	1	14.3	5	71.4	1	14.3			
Gender									
Male	2	10.5	8	42.1	9	47.4	1.89	2	0.388
Female	6	19.4	16	51.6	9	29			
Religion									
Hindu	6	28.6	10	47.6	5	23.8	5.27	4	0.060
Christian	1	5.3	9	47.4	9	47.4			
Muslim	1	10	5	50	4	40			
Others	0	0	0	0	0	0			
Marital status									
Married	8	22.2	17	47.2	11	30.6	7.02	4	0.035
Unmarried	0	0	7	58.3	5	41.7			
Widow	0	0	0	0	2	100			
Educational status									
Illiterate	1	12.5	6	75	1	12.5	16.5	10	0.005
Primary	4	50	1	12.5	3	37.5			
SSLC	1	7.7	6	46.2	6	46.2			
Intermediate	1	8.3	8	66.7	3	25			
Graduate	1	16.7	1	16.7	4	66.7			
post graduate	0	0	2	66.7	1	33.3			
Previous occupation									
House wife	1	12.5	4	50	3	37.5	11.8	10	0.014
Unemployed	3	21.4	6	42.9	5	35.7			
Unskilled	1	8.3	8	66.7	3	25			
Professional	0	0	0	0	3	100			
Services	1	14.3	5	71.4	1	14.3			
Retired	2	33.3	1	16.7	3	50			
Monthly family income									
1000-4000	2	11.1	8	44.4	8	44.4	8.59	6	0.198
5000-10000	2	16.7	9	75	1	8.3			
10000-15000	2	20	5	50	3	30			
>15000	2	20	2	20	6	6			
No.of children									
No child	0	0	2	28.6	5	71.4	12.4	6	0.053
1	0	0	4	100	0	0			
2	1	12.5	6	75	1	12.5			
More than 2	7	22.6	12	38.7	12	38.7			
Type of family									
Nuclear	1	6.7	9	60	5	33.3	1.85	2	0.396
Joint	7	20	15	42.9	13	37.1			
Source of income									
Services	1	12.5	3	37.5	4	50	1.24	4	0.871
Business	2	14.3	8	57.1	4	28.6			
Agriculture	0	0	0	0	0	0			
Pension	5	17.9	13	46.4	10	35.7			
Place of residence									
Urban	8	16	24	48	18	36	-	-	-
Rural	0	0	0	0	0	0			
Health status									
Diabetes mellitus	1	10	3	30	6	60	4.44	6	0.617
Hypertension	1	20	2	40	2	40			
Coronary artery disease	1	9.1	7	63.6	3	27.3			
Any previous surgery	5	20.8	12	50	7	29.2			
Perceived family support									
Yes	6	15.8	21	55.3	11	28.9	13.93	2	0.001
No	2	16.7	3	25	7	58.3			
Types of family support									
Psychological and emotional	3	16.7	8	44.4	7	38.9	2.57	4	0.632
Sharing household activities	3	15	12	60	5	25			
Taking care of children's others	2	16.7	4	33.3	6	50			

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

The above table represents Association between the quality of life among elderly persons with demographic variables in selected urban area. It was statistically found that the age, marital status educational status, previous occupation, monthly family, No. of children and perceived family support had significant association at the level of $p< 0.05$.

Table 21: Association between the quality of life among elderly people with demographic variables in rural areas N=50.

Demographic variables	Rural Area (n=50)						χ^2	Df	P-Value
	Poor		Neither good nor poor		Good				
	N	%	n	%	n	%			
Age in years									
60-65 years	2	28.6	3	42.9	2	28.6	3.84	6	0.228
66-70 years	2	11.8	7	41.2	8	47.1			
71-75 years	2	9.5	12	57.1	7	33.3			
>75 years	1	20	2	40	2	40			
Gender									
Male	4	21.1	7	36.8	8	42.1	2.02	2	0.364
Female	3	9.7	17	54.8	11	35.5			
Religion									
Hindu	4	22.2	6	33.3	8	44.4	4.66	4	.323
Christian	2	9.1	14	63.6	6	27.3			
Muslim	1	10	4	40	5	50			
Others	0	0	0	0	0	0			
Marital status									
Married	6	15.4	19	48.7	14	35.9	1.81	4	.770
Unmarried	1	10	4	40	5	50			
Widow	0	0	1	100	0	0			
Educational status									
Illiterate	2	14.3	7	50	5	35.7	7.31	8	.041
Primary	3	27.3	6	54.5	2	18.2			
SSLC	2	12.5	5	31.2	9	56.2			
Intermediate	0	0	5	71.4	2	28.6			
Graduate	0	0	1	50	1	50			
Previous occupation									
House wife	1	9.1	5	45.5	5	45.5	2.26	10	.994
Unemployed	2	25	3	37.5	3	37.5			
Unskilled	2	11.8	9	52.9	6	35.3			
Professional	0	0	1	50	1	50			
Services	1	14.3	4	57.1	2	28.6			
Retired	1	20	2	40	2	40			
Monthly family income									
1000-4000	2	9.1	11	50	9	40.9	4.27	6	.640
5000-10000	3	27.3	6	54.5	2	18.2			
10000-15000	1	12.5	4	50	3	37.5			
>15000	1	11.1	3	33.3	5	55.6			
No. of children									
No child	0	0	1	16.7	5	83.3	8.75	6	.008
1	0	0	1	50	1	50			
2	2	28.6	2	28.6	3	42.9			
More than 2	5	14.3	20	57.1	10	28.6			
Type of family									
Nuclear	2	20	3	30	5	50	1.63	2	.441
Joint	5	12.5	21	52.5	14	35			
Source of income									
Services	1	33.3	1	33.3	1	33.3	9.21	6	.007
Business	0	0	0	0	2	100			
Agriculture	2	9.5	8	38.1	11	52.4			
Pension	4	16.7	15	62.5	5	20.8			
Place of residence									
Urban	0	0	0	0	0	0	-	-	-
Rural	7	14	24	48	19	38			
Health status									
Diabetes mellitus	2	18.2	3	27.3	6	54.5	10.2	6	.015
Hypertension	1	12.5	3	37.5	4	50			
Coronary artery disease	0	0	4	40	6	60			
Any previous surgery	4	19	14	66.7	3	14.3			
Perceived family support									
Yes	6	14.6	21	51.2	14	34.1	1.44	2	.485
No	1	11.7	3	33.3	5	55.6			
Types of family support									
Psychological and emotional	0	0	8	57.1	6	42.9	4.37	4	.221
Sharing household activities	5	16.7	14	46.7	11	36.7			
Taking care of children's others	2	33.3	2	33.3	2	33.3			

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

The above table represents Association between the quality of life among elderly people with demographic variables in rural area. It was statistically found that the educational status, number of children, source of income and health status has significant association at the level of $p< 0.05$.

Conclusions

The result revealed in the level of Stress, Coping strategies and Quality of life. In the level of stress, in selected urban area majority of the elderly people had moderate stress40 (80%) and less elderly people had high stress 7(14%).In selected rural area majority of the elderly people had moderate stress41 (82%) and less elderly people had high stress9 (18%). In coping strategies With respect to the urban area, majority of the elderly people had medium amount of coping strategies (56%) and nearly half of the elderly people had little bit of coping strategies (44%). With respect to the rural area, majority of the elderly people had medium amount of coping strategies (64%) and nearly half of the elderly people had little bit of coping strategies (36%). The study revealed that level of stress and quality of life among elderly people 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. It also indicated that effective coping strategies should be developed at all the levels in order to fight with the growing problems of the elderly. The researcher recommends more studies can be conducted in different settings, with different population. The different studies can be conducted among the health care professionals who plays important role to disseminate the information to the people.

Conflict of Interest

Not available

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