

A Study to Assess The Level of Stress and Coping Strategies Among Geriatric Chronic Illness Patients at Srm Mch & Rc.

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Abstract

A study to assess the level of stress and coping strategies among geriatric chronic illness patients at SRM MCH & RC.

Aim and Objective: To assess the level of stress and coping strategies among geriatric chronic illness patients.

Methodology: The research approach used for the study are quantitative approach and descriptive research design. The samples were selected by purposes sampling technique. The sample size was 150 geriatric chronic illness patients. The study was conducted at SRM MCH & RC. Perceived stress scale (10-item scale) and Coping scale by Hamby, Grych and Banyard (2013) (13 item scale) was used for collection of data. The period of data collection was 1 month.

Results: Approximately 92.7% of geriatric population living with chronic illnesses reported moderate stress, 4% high stress, and 3.3% mild stress. As for coping mechanisms, around 90% of these patients had moderate coping mechanisms, 6.7% had high coping mechanisms, and 3.3% had low coping mechanisms. The correlation value of $(r = 0.335)$ suggests a negative correlation, which means when elderly people with chronic illnesses improve their coping, their stress levels tend to decrease. Additionally stress levels in the geriatric population were found to be strongly influenced by family income.

Conclusion: Present study concluded that (92.7%) of geriatric population had moderate level of stress and (90%) of these patients had moderate coping mechanisms. ($p < 0.001$). Geriatric chronic illness patients stress levels have been found to be significantly correlated with family income.

Key words: Stress, Coping Strategies, Chronic illness, Geriatric, Perceived stress scale.

Introduction

The increasing prevalence of chronic illnesses among the elderly population suggests how important it is to understand their unique healthcare needs, especially concerning their ability to cope with the stress that comes with having a chronic illness. "A sound mind is in a sound body - Juvenal". The mind and body should both be happy and sound. A sound body is a healthy, disease-free body, whereas a sound mind is one filled with beneficial and encouraging thoughts. The term stress means pressure and in human life it represents an uneasy experience it is

an unpleasant psychological state caused due to some internal and or external demands that go beyond our capacity. And coping is termed as when each person has his normal level of arousal which functions best if something unusual in the environment occurs this level of arousal is affected [1,2,3,4,5,6]. According to World Health Organization in 2020, One billion individuals worldwide were 60 years or older, and this number is predicted to grow to 1.4 billion by 2030. Stress has become a major health problem in India. At individual and family levels it leads to poor quality

of life [7,8,9,10]. According to the United Nations Population Fund, In India people above the age of 60 was 104 million according to the population census of 2011. By the end of 2026, this population is said to have increased to 174 million [11,12,13,14,15,16,17]. Research conducted by the National Confederation of Officers Association, 95% of adults aged 60 and above have at least one chronic condition, while 80% have two or more. Aging, lack of family support, severity of the condition and financial issues become a challenge to the elderly which can lead to other psychological problems and health problems adding even more burden to them and their families. So it becomes important to adapt or learn to handle the physical and biological changes caused by the illness and focus on preparing themselves both physically and mentally. A group of study found that 75% of Bangladeshi women in rural areas rely on family support, 63% use traditional medicine, and 50% actively seek community help, with religious beliefs significantly influencing their coping strategies [18,19,20,21,22,23,24]. Studies are stated that elderly women with chronic illnesses primarily use two strategies: seeking information and wish-fulfilling fantasy. Seeking information helps adjust to their circumstances, while wish-fulfilling fantasies offer emotional support and positive thinking [25,26,27,28,29,30]. Inability to cope and hopelessness is something most commonly seen in the elderly due to prolonged stress a,17nd difficulties faced by them in everyday life because of being chronically ill. Good coping skills are said to have a positive health outcome. So this study is focused on determining the stress levels and also the coping levels of this vulnerable population living with chronic diseases.

Objectives

1. To assess the level of stress and coping strategies among geriatric chronic illness patients.
2. To evaluate the level of stress and coping strategies among geriatric chronic illness patients.
3. To correlate the relationship between stress and coping strategies among geriatric chronic illness patients.

4. To associate the relationship between stress and coping strategies and their demographic variables of chronically ill geriatric patients.

Research Hypotheses

RH1: There is a significant relationship between the level of stress and coping strategies among geriatric chronic illness patients.

RH2: There is a significant correlation between the level of stress and coping strategies among geriatric chronic illness patients.

RH3: There is a significant association between the level of stress and coping strategies and their demographic variables among geriatric chronic illness patients.

Material And Methods

The current study adopted quantitative research approach and descriptive research design .The target population was patient above the age of 60 years with chronic illnesses getting treatment at SRM MCH & RC Kattankulathur, Chengalpattu District. The data collection Process done for one month by using purposive sampling method. The tool is prepared based on the objectives of the study. After obtaining approval and clearance from the Institutional Ethics Committee. 150 subjects who met the inclusion and exclusion criteria were included in the study. Anonymity, confidentiality were maintained for all the study subjects. The study was conducted from 20.02.2024 to 20.03.2024. Detailed history of the geriatric patients with chronic illness was obtained. The inclusion criteria for selection of patients were aged 60 and above. Patients willing to participate in the study who are getting treatment for chronic illness in SRM MCH & RC. Patient who are not willing to participate in this study were excluded. Content validity of the instruments was obtained from three nursing experts. The reliability of the tool was measured by using Crobach's alpha method.

Data Collection Procedure

Ethical consideration was obtained from SRM MCH & RC. Prior to the data collection the investigators introduced self and established rapport with the patients selected for the study. The procedure of data collection was carried from

(20.02.2023 to 20.03.2023) One month. Data were gathered from patients aged over 60 who had at least one chronic illness. Patients were informed of the study purpose ahead of data collection. Consent forms were obtained in either Tamil or English prior to data collection. And the importance of prevention of stress awareness was given. Standardized tools was used to collect the data to assess the stress Perceived stress scale by Cohen et al (10 scale item) and The coping scale by Hamby, Grych, Banyard (13 scale item) was used. Patients were asked to respond to questions regarding their own experiences and challenges related to their chronic conditions. Confidentiality and anonymity of the patients were ensured throughout the process.

Instruments

Section A: Demographic variable : age, gender, religion, marital status, education, occupation, place of residence, family income, type of family, number of children, types of illness. **Section B: Modified Perceived Stress Scale by Cohen et al 1983.** Modified perceived stress scale a 10 item scale to assess the level of stress among geriatric chronic illness patient. It is a 10 item scale **Scoring key:** This section contains 0= never, 1= almost never, 2=sometimes, 3= fairly often, 4= very often.

Results

TABLE 1: Frequency and Percentage Distribution of demographic variables of the Chronically Ill geriatric patients.

N = 150

Demographic Variables	Frequency(f)	Percentage(%)
Age		
60 – 69	65	43.4
70 – 79	41	27.3
80 – 89	32	21.3
90 and above	12	8.0
Gender		
Male	69	48.0
Female	79	52.7
Other	2	1.3
Prefer not to respond	-	-
Religion		

For the questions 4,5,7,8 the scores will be reversed like 0=4, 1=3, 2=2, 3=1, and 4=0. **Scoring interpretation:** Low Stress = 0-13, Moderate Stress = 14-26, High Perceived Stress= 27-40 . **Section C: Modified Coping Scale by Hamby et al 2013.** Modified coping scale a 13 scale item to assess the coping strategies among geriatric chronic illness patient. **Scoring key:** This section contains mostly true about me = 4, somewhat true about me = 3, a little true about me = 2, not true about me = 1. The total score can be a sum or mean of all the items. **Scoringinterpretation:** High levels of coping = 40-52, Moderate levels of coping = 27-39, Low levels of coping = 13-26. Higher scores indicate higher levels of coping.

Statistical Analysis

Analyses of data were done according to the study's objectives. Analysis and interpretation was carried out using inferential as well as descriptive statistics. Demographic variables have been explained using frequency and percentage distribution. Stress and coping levels have been evaluated using frequency and percentage distribution. To determine the levels of stress and coping with demographic variables, the chi square test was used.

Demographic Variables	Frequency(f)	Percentage(%)
Hindu	64	42.6
Christian	46	30.7
Muslim	33	22.0
Other	7	4.7
Marital status		
Single	-	-
Married	136	90.7
Widowed	12	8.0
Divorced	2	1.3
Educational background		
Illiterate	34	22.7
Primary education	47	31.3
Secondary education	46	30.7
Graduate and above	23	15.3
Occupation		
Homemaker	47	31.3
Government employee	25	16.7
Private employee	56	37.3
Self-employed	22	14.7
Place of residence		
Urban	36	24.0
Rural	53	35.4
Semi-rural	35	23.3
Semi-urban	26	17.3
Type of family		
Nuclear family	91	60.7
Joint family	41	27.3
Single parent	17	13.3
Prefer not to respond	1	0.7
Number of children		
1 child	32	21.3
2 children	52	34.7
3 children	46	30.7
More than 4	20	13.3
Type of illness		
Hypertension	54	36.0

Demographic Variables	Frequency(f)	Percentage(%)
Diabetes	55	36.7
Heart disease	23	15.3
Others	18	12.0

Table:1, shows that, regards to age 60-69 participations were (43.4%). Concern to gender, Female patients were 79(52.7%). Among religion Christian were 46(30.7%).Regards to marital status Married were 136(90.7%), Widowed 12(8.0) and Divorced 2(1.3%). Educational background, Illiterate people were 34(22.7%), Primary education 47(31.3%), Secondary education

46(30.7%) and Graduate and above 23(15.3%). Occupation, Private employee were 56(37.3%). Place of residence, Most people living in Rural area 53(35.4%). Types of family, Nuclear family 91(60.7%). Number of children 2 children in a family 52(34.7%). Regarding the type of illness, Diabetes Mellitus population were 55(36.7%).

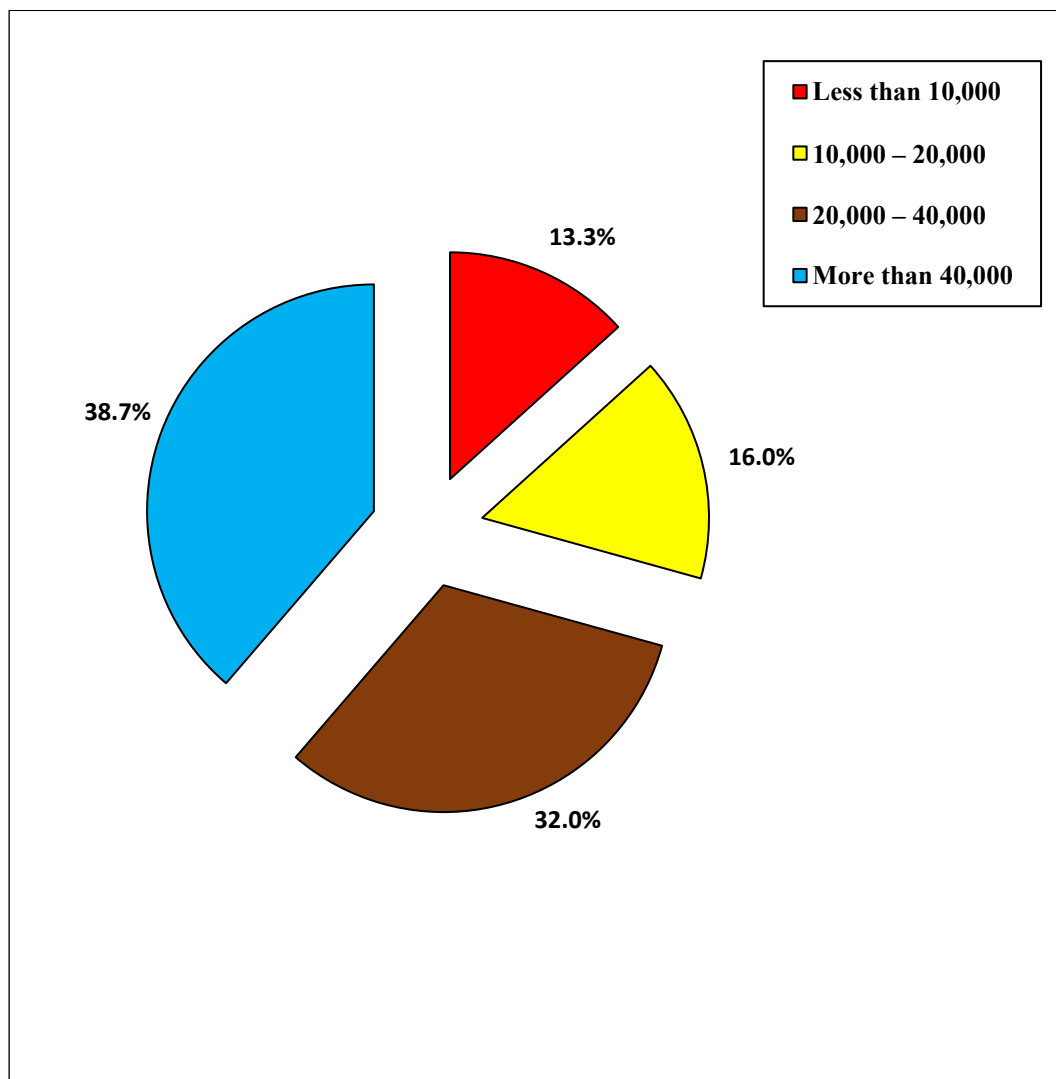


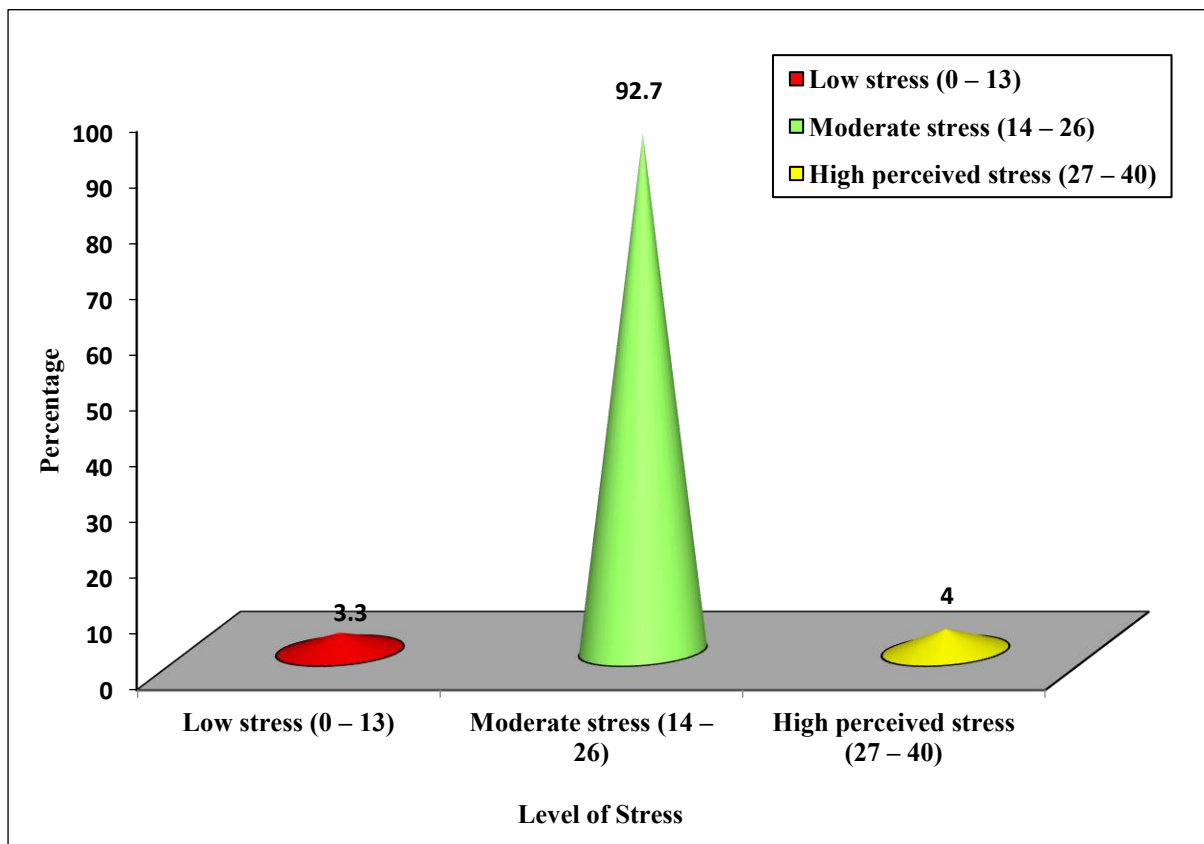
Figure: 1-Family income of Chronically Ill geriatric patients

Figure-1 stated that family income of chronically ill geriatric patients Family income, more than 40,000 were 58(38.7%).Less than 10,000 (13.3%), 10,000 – 20,000 (16.0%).Whereas 20,000-40,000 were (32%).

Table 2: Frequency and Percentage Distribution of level of stress among geriatric chronic illness patients.**N = 150**

Level of Stress	Frequency(f)	Percentage(%)
Low stress (0 – 13)	5	3.3
Moderate stress (14 – 26)	139	92.7
High perceived stress (27 – 40)	6	4.0

Table 2 shows that among geriatric chronic illness patients, 139(92.7%) had moderate stress, 6(4%) had high perceived stress and 5(3.3%) had low stress.

*Figure: 2-Level of stress among geriatric chronic illness patients***Table 3: Frequency and Distribution of level of coping strategies among geriatric chronic illness patients.****N = 150**

Level of Coping Strategies	Frequency(f)	Percentage(%)
Low (13 – 26)	5	3.3
Moderate (27 – 39)	135	90.0
High (40 – 52)	10	6.7

Table 3 shows that among geriatric chronic illness patients, 135(90%) had moderate coping, 10(6.7%) had high level of coping and 5(3.3%) had low level of coping.

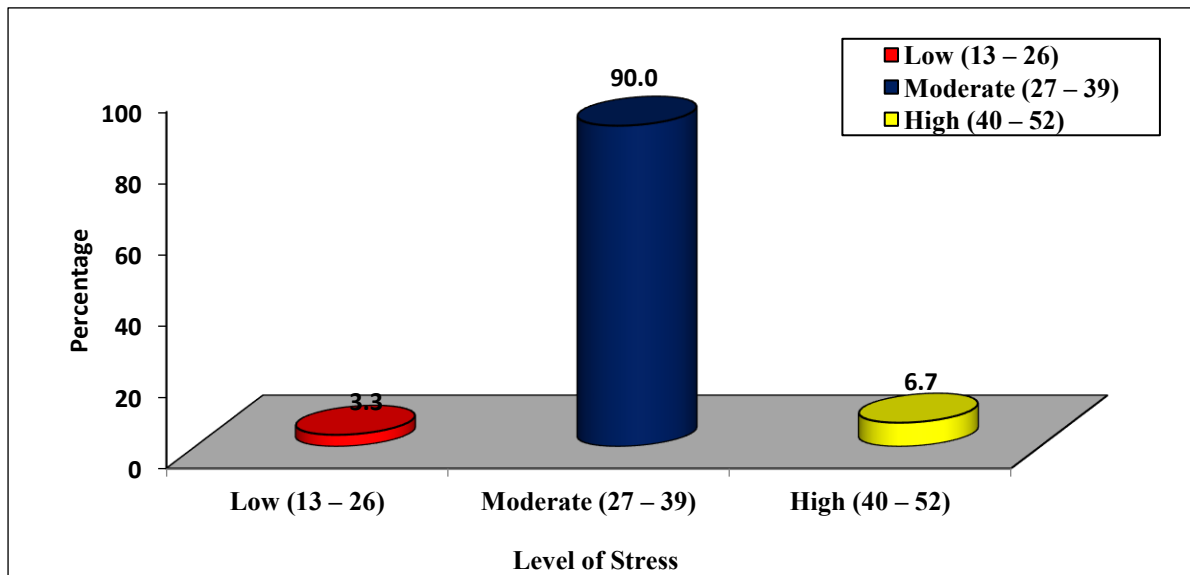


Figure: 3-Level of coping among geriatric chronic illness patients

TABLE 4: Mean, SD and Correlation between stress and coping strategies among geriatric chronic illness patients.

N = 150

Variables	Mean	S.D	Karl Pearson's Correlation 'r' & p-Value
Stress	19.37	3.40	r= -0.335 p=0.0001, S***
Coping	33.84	3.66	

***p<0.001, S – Significant

Table 4 reveals that the average stress score Mean- 19.37 SD -3.40 and the average coping score Mean- 33.84, SD-3.66. Karl Pearson's Correlation "r" value of r=-0.335, there is a negative

correlation that is statistically significant at the p<0.001 level. This suggests that stress levels among elderly people with chronic illnesses decrease as their coping skills significantly increase

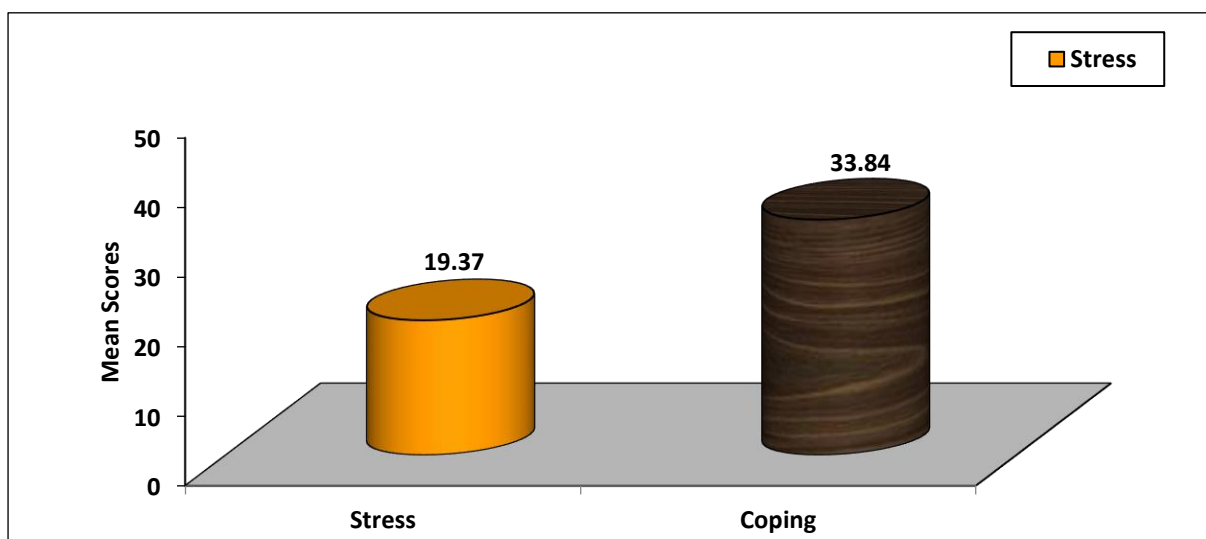


Figure: 4- Correlation between stress and coping strategies among geriatric chronic illness patients

TABLE 5: Association between the level of stress and their selected demographic variables among geriatric chronic illness patients**N = 150**

Demographic Variables	Frequency(f)	Stress
		Chi-Square & p-value
Age		
60 – 69	65	$\chi^2=4.046$ d.f=6 p=0.670 N.S
70 – 79	41	
80 – 89	32	
90 and above	12	
Gender		
Male	69	$\chi^2=4.060$ d.f=4 p=0.398 N.S
Female	79	
Other	2	
Prefer not to respond	-	
Religion		
Hindu	64	$\chi^2=6.686$ d.f=6 p=0.351 N.S
Christian	46	
Muslim	33	
Other	7	
Marital status		
Single	-	$\chi^2=1.222$ d.f=4 p=0.874 N.S
Married	136	
Widowed	12	
Divorced	2	
Educational background		
Illiterate	34	$\chi^2=5.515$ d.f=6 p=0.480 N.S
Primary education	47	
Secondary education	46	
Graduate and above	23	
Occupation		
Homemaker	47	$\chi^2=10.586$ d.f=6 p=0.102
Government employee	25	

Demographic Variables	Frequency(f)	Stress
		Chi-Square & p-value
Private employee	56	N.S
Self-employed	22	
Place of residence		$\chi^2=8.121$ d.f=6 p=0.229 N.S
Urban	36	
Rural	53	
Semi-rural	35	
Semi-urban	26	
Family income		$\chi^2=13.653$ d.f=6 p=0.034 S*
Less than 10,000	20	
10,000 – 20,000	24	
20,000 – 40,000	48	
More than 40,000	58	
Type of family		$\chi^2=1.381$ d.f=6 p=0.967 N.S
Nuclear family	91	
Joint family	41	
Single parent	17	
Prefer not to respond	1	
Number of children		$\chi^2=2.295$ d.f=6 p=0.891 N.S
1 child	32	
2 children	52	
3 children	46	
More than 4	20	
Type of illness		$\chi^2=1.785$ d.f=6 p=0.939 N.S
Hypertension	54	
Diabetes	55	
Heart disease	23	
Others	18	

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

TABLE 6: Association between the levels of coping and their selected demographic variables among geriatric chronic illness patients**N = 150**

Demographic Variables	Frequency(f)	Coping
		Chi-Square & p-value
Age		
60 – 69	65	$\chi^2=4.358$ d.f=6 p=0.628 N.S
70 – 79	41	
80 – 89	32	
90 and above	12	
Gender		
Male	69	$\chi^2=0.667$ d.f=4 p=0.955 N.S
Female	79	
Other	2	
Prefer not to respond	-	
Religion		
Hindu	64	$\chi^2=7.818$ d.f=6 p=0.252 N.S
Christian	46	
Muslim	33	
Other	7	
Marital status		
Single	-	$\chi^2=0.726$ d.f=4 p=0.948 N.S
Married	136	
Widowed	12	
Divorced	2	
Educational background		
Illiterate	34	$\chi^2=3.367$ d.f=6 p=0.762 N.S
Primary education	47	
Secondary education	46	
Graduate and above	23	
Occupation		
Homemaker	47	$\chi^2=5.412$ d.f=6 p=0.492 N.S
Government employee	25	
Private employee	56	

Demographic Variables	Frequency(f)	Coping
		Chi-Square & p-value
Self-employed	22	
Place of residence		
Urban	36	$\chi^2=5.084$ d.f=6 p=0.533 N.S
Rural	53	
Semi-rural	35	
Semi-urban	26	
Family income		
Less than 10,000	20	$\chi^2=6.690$ d.f=6 p=0.351 N.S
10,000 – 20,000	24	
20,000 – 40,000	48	
More than 40,000	58	
Type of family		
Nuclear family	91	$\chi^2=7.368$ d.f=6 p=0.288 N.S
Joint family	41	
Single parent	17	
Prefer not to respond	1	
Number of children		
1 child	32	$\chi^2=4.055$ d.f=6 p=0.669 N.S
2 children	52	
3 children	46	
More than 4	20	
Type of illness		
Hypertension	54	$\chi^2=5.863$ d.f=6 p=0.439 N.S
Diabetes	55	
Heart disease	23	
Others	18	

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

Table 6 reveals that there was no statistically significant correlation between the demographic variable and the level of coping among geriatric chronic illness patients.

DISCUSSION

The study assessed stress and coping strategies among geriatric chronic illness patients. Out of 150 participants, 43.4% were aged 60-69, 52.7%

female, 42.6% Hindu, 90.7% married, 31.3% had primary education, 37.3% were private employees, 35.4% were living in rural area, 38.7% with family income over 40,000, 60.7% were nuclear family,

34.7% with 2 children, and 36.7% with diabetes. Among which 93.7% experienced moderate stress, 4.4% high stress, and 3.3% mild stress. The study found that 90% of geriatric patients use moderate coping strategies, while 6.7% exhibit strong skills, with 3.3% having poor coping abilities. A group of people conducted the study, involving 1,748 chronically ill patients, the study found that chronically ill geriatric patients had moderate stress symptoms with a mean score of 2.17 [31,32,33,34,35].

The current study found an average stress score of 19.37 and coping score of 33.84 among elderly patients with chronic illnesses. A negative correlation was found between stresses and coping, suggesting that enhancing coping mechanisms could reduce stress levels, emphasizing the need for supportive interventions. There are two studies explores that the effect of stress of chronic illness on coping strategies in the elderly population; The study found that chronic illness directly affects the psychological well-being. It also highlights the need for intervention and prevention [36, 37].

The current study found that a significant negative correlation between stress and coping strategies in elderly people with chronic illnesses, suggesting that stress levels decrease as coping skills improve. Similarity studies are found that 49% of 60-year-old women with chronic illnesses have high stress levels, with 45% having poor coping skills. Only 7.5% had better coping, and only 1.3% had a very good quality of life. It highlights that better coping strategies help reduce stress and enhance life quality which can help reduce the risk for possible health issues [38, 39, 40]. Current study says that significant relationship between family income and stress levels in elderly patients with chronic illnesses, with a chi-square value of 13.653 and a p-value of 0.034, highlighting the importance of considering family income when addressing stress in this population.

CONCLUSION

The study was aimed to assess the level of stress and coping among geriatric chronic illness patients this study concluded that (92.7%) of geriatric population had moderate level of stress

and (90%) of these patients had moderate coping mechanisms, when the coping increases the level of stress among geriatric patients living with chronic illness decreases. Further, Geriatric chronic illness patients stress levels have been found to be significantly correlated with family income.

RECOMMENDATION

A larger population might be used for similar research. Interventions can be implemented related to reducing stress or improving coping skills among geriatrics. A longitudinal study can be done to monitor the changes in the stress level over a while to provide a deeper understanding. A study can be made to address the role of technology in the management of stress and coping among the geriatric population such as tele-health.

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Conflicts of Interest

There are no conflicts of interest

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