



Quality Of Life and Coping Strategies Among Caregivers of Patient with Cardiovascular Diseases

P.Rashmipriya Rath^{1*}, Puspanjali Senapati², Bandita Sahoo³, Bishnupriya Mohapatra⁴, Subhasmita Behera⁵, Sudeshna Pradhan⁶, Suchismita Nayak⁷, Sujata Swain⁸

^{1*}M.Sc Tutor, Department of Medical Surgical Nursing(neuroscience), Sum Nursing College, SOA University, Bhubaneswar, Odisha.

²M.Sc Tutor, Dept. of Child Health Nursing, Sum Nursing College, SOA University, Bhubaneswar, Odisha.

³M.Sc Tutor, Dept. of Community Health Nursing, Sum Nursing College, SOA University, Bhubaneswar, Odisha.

⁴M.Sc Tutor, Dept. Medical Surgical Nursing, Sum Nursing College, SOA University.

⁵M.Sc Tutor, Dept. of Obstetrics and Gynaecology, Sum Nursing College, SOA University, Bhubaneswar, Odisha.

⁶M.Sc Tutor, Dept. of Community Health Nursing, Sum Nursing College, SOA University, Bhubaneswar, Odisha.

⁷Community Health Officer, Department of Health and family Welfare, Government of Odisha.

⁸Vice principal, Dept. of C.H.N, Faculty Kalinga Nursing College, Kalinga Hospital, BBSR.

Email: p.rashmipriyarath@soa.ac.in¹

*Corresponding Author's E-mail: p.rashmipriyarath@soa.ac.in

Article History	Abstract
Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 27 Oct 2023	<p>Caregivers and family members of patients with long-term cardiovascular diseases often experience varying degrees of depression due to the significant changes in life style and the challenges associated with managing the condition. Adapting and modifying coping strategies as needed is crucial for caregivers to effectively decrease or manage stressful situations. The objectives of this study was to assess the quality of life and coping strategies among caregiver of cardiovascular patient. At IMS & SUM Hospital in Bhubaneswar ,Odisha, a descriptive correlational research design was used. Purposive sampling selected 200 participants who completed a socio-demographic questionnaire. Two standardized scale s were employed: the WHOQOL-BREF scale to measure quality of life and the coping inventory for stressful situations to assess coping strategies. The study findings showed a significant negative correlation ($r = -0.338, p < 0.01$) between quality of life and coping strategies, as indicated by Karl Pearson's correlation coefficient. This suggests that as, if the coping strategies is better, the quality of life is also better. Additionally, the study employed ANOVA and t-tests to examine the differences between quality of life and coping strategies. The study findings suggest that the quality of life of young individuals is more impacted by caregiving compared to the elderly. There is a significant negative correlation between quality of life and coping strategies, indicating that higher quality of life scores are associated with lower coping strategy scores. Conversely, better coping strategies are linked to better quality of life. Caregivers employ various coping strategies, and counselling can play a crucial role in providing emotional support, guidance, and practical advice to help caregivers manage challenges and maintain their well-being while caring for cardiovascular patients.</p>
CC License CC-BY-NC-SA 4.0	Keyword: Quality of life, Coping strategies, Caregivers, Cardiovascular diseases patient

1. Introduction

Cardiovascular disorders are a significant global health problem, causing a substantial number of deaths worldwide. In India, they contribute to a significant proportion of annual deaths, with approximately 20.3% males & 16.9% in females.¹ Caregivers play a crucial role in providing not only physical care but also companionship, emotional support, and advocacy for individuals with long-term disease. However, the long-term nature of these illnesses brings about various difficulties and significant lifestyle changes for the clients. Caregivers are responsible for managing medication, monitoring symptoms, assisting with daily activities and offering emotional support. The responsibilities of caregivers encompass tasks such as medication management, symptom monitoring, daily activity assistance, and emotional support. These duties can impose

a significant burden on caregivers, impacting them both physically and emotionally.² Care-givers are the peoples who during the course of the diseases and treatments are the most involved people in the care of patients and help them to adapt and manage their chronic diseases.

Care-givers are usually family members or friends of patient who will take care of the patient on a daily basis and support them physically, mentally, and socially but do not receive any compensate for the care they provide. The long-term nature of cardiovascular diseases various difficulties and significant changes in life style of patients which causes the caregivers and family members of the patient to experience a excessive level of depression in a way that their mental health will be affects to various degrees.³ The cardiovascular disease patients caregivers will experience significant level of depression that influence their quality of life. Raising of depression and diminishing quality of life can lead to complications such as depression. Excessive depression influences the caregiver's quality of life and it may result in decreased care provision and deteriorating condition for patients with long-term illness. Coping strategies can vary, with caregivers using problem-focused, emotion- focused, and avoidance -oriented strategies depending on the situation.it is important for caregivers to find healthy coping mechanisms to maintain their own well-being while providing care to their loved ones.⁴

2. Materials And Methods

The study utilized a descriptive co-relational research design and employed purposive sampling to select 200 caregivers for the main study. This approach allowed for the identification of any issues and the selection of a representative sample. the study was conducted at the cardiovascular IPD & OPD of IMS& SUM hospital in Bhubaneswar. The inclusion criteria for participants were an age group between 20-60 years and willingness to participate, while caregivers providing care with paid service were excluded. Data was collected using a socio-demographic questionnaire, standardized WHOQOL-BREF scale, and standardized coping inventory for stressful situation scale. These tools were chosen for their reliability and validity. To ensure ethical compliance, the study obtained approval from the research committee and institutional ethics committee, as well as written permission from the medical superintendent and administrative review board. Informed consent was obtained from all participants, protecting their rights and privacy.

Statistical Analysis

Descriptive statistical were used to analyze the data collected from the socio-demographic profile, and Karl Pearson's correlation coefficient was used to examine the relationship between quality of life and coping strategies. ANOVA tests and t-tests were conducted to compare quality of life and coping strategies with socio-demographic variables. These statistical analyses aimed to explore the associations between caregivers quality of life, coping strategies and socio-demographic factors.

3. Results and Discussion

Section – I

Table 1: Descriptive statistics of Quality of Life of caregiver n = 200

Descriptive Statistics	Descriptive statistics of Quality of life Score in percentage				
	Physical health	Psychological health		Social relationship	Environmental health
	Mean	21.6	17.1	8.7	23.4
	SD	2.9	2.9	1.9	3.8
	Median	22	17	9	23

The data in the table indicates that caregivers quality of life (QOL) is significantly impacted by their role in caring for cardiovascular patients. The mean scores for physical, psychological health, social relationship and environmental health were 21.6, 17.1, 8.7 and 23.4 respectively. These scores suggest that caregivers QOL is particularly affected in terms of physical and psychological health.

Table 2: Descriptive statistics of coping strategies n = 200

Descriptive Statistics	Descriptive statistics of coping strategies Score in percentage			
	Task- Oriented coping	Emotion-Oriented coping	Avoidance- coping	
	Mean	50.7	47.2	53.2
	SD	10.6	7.7	8.6
	Median	51.4	45.7	54.3

The data in the table suggests that caregivers are using various coping strategies to handle the challenges of caregiving. The average scores for Task-Oriented, Emotion- Oriented, and Avoidance-Oriented coping were

50.7, 47.2 and 53.2 respectively. These scores indicate that caregivers may benefit from counseling to better manage for caregiving.

Section - II

Table 3: Co-relation between Quality of life & Coping strategies of caregivers n = 200

Correlation Quality of life & Coping strategies		
Variables	Score in percentage	
	Quality of life	Coping strategies
Quality of life	1	-0.338**
Coping strategies		1

** Correlation is significant at the 0.01 level (2-tailed).

The data in the table indicates a significant negative correlation (- 0.338, p =<0.01) between quality of life and coping strategies. This means that as the quality of life score decreases , the coping strategies score also decreases. In other words, better coping strategies are associated with better quality of life.

Section-III

Table 4: Comparison of Quality of life & Coping strategies of caregiver of patients by socio-demographic variables

Comparison of Quality of life & Coping strategies of care givers						
Variables	Classification	n(%)	Score in Percentage			
			Quality of life		Coping strategies	
			Mean ± SD	F' / 't' value	Mean ± SD	F' / 't' value
Age group in years	20-30	25(12.5%)	63.0 ± 6.3	3.898*	48.5 ± 6.6	1.331*
	30-40	87(43.5%)	59.0 ± 8.4		51.0 ± 6.7	
	40-50	70(35%)	58.7 ± 7.8		49.9 ± 5.9	
	50-60	18(9%)	54.9 ± 7.2		51.8 ± 7.6	
ANOVA 'p' value			0.010		0.265	
Gender	Male	129(64.5%)	58.5 ± 7.9	-1.383#	50.6 ± 6.3	0.688#
	Female	71(35.5%)	60.1 ± 8.1		50.0 ± 6.9	
Independent sample 't' test 'p' value			0.168		0.492	
Education status	Primary	24(12%)	59.0 ± 7.7	4.475*	50.4 ± 6.0	0.678*
	High school	68(34%)	56.5 ± 7.1		51.2 ± 6.5	
	UG	65(32.5%)	59.9 ± 8.6		50.2 ± 6.5	
	PG	43(21.5%)	61.8 ± 7.8		49.4 ± 6.8	
ANOVA 'p' value			0.005		0.566	
Occupation	Government employee	10(5%)	52.4 ± 5.7	5.12*	52.5 ± 7.2	0.764*
	Private employee	51(25.5%)	61.9 ± 8.6		49.4 ± 7.0	
	Business	54(27%)	58.1 ± 6.8		50.6 ± 6.7	
	Un employee	85(42.5%)	58.7 ± 8.0		50.6 ± 6.1	
ANOVA 'p' value			0.002		0.516	
Income per month	<10,000	21(10.5%)	57.7 ± 8.2	0.441*	51.4 ± 6.7	0.365*
	10,000-30,000	127(63.5%)	59.4 ± 7.7		50.1 ± 6.0	
	31,000-50,000	52(26%)	58.8 ± 8.7		50.6 ± 7.6	
	ANOVA 'p' value			0.644		0.695

Marital status	Unmarried	65(32.5%)	59.5 ± 8.2	3.048*	49.9 ± 6.0	1.609*
	Married	112(56%)	59.1 ± 8.0		50.2 ± 6.5	
	Widow	21(10.5%)	56.0 ± 6.3		53.1 ± 7.9	
	Divorce	2(1%)	72.3 ± 2.2		46.2 ± 3.4	
ANOVA 'p' value			0.030		0.188	
Duration of disease condition	< 5 year	52(26%)	59.7 ± 8.3	0.442*	49.6 ± 5.5	0.560*
	6-8 year	122(61%)	58.7 ± 7.7		50.7 ± 7.1	
	9-20 year	18(9%)	60.3 ± 9.0		51.2 ± 5.6	
	> 20 year	8(4%)	57.2 ± 8.7		48.9 ± 5.2	
ANOVA 'p' value			0.723		0.642	
Dependency of patient in ADLs	No	59(29.5%)	60.1 ± 8.2	1.153#	49.7 ± 6.4	-0.999#
	Yes	141(70.5%)	58.6 ± 7.9		50.7 ± 6.6	
Independent sample 't' test 'p' value			0.250		0.319	
Relationship with patient	Father	27(13.5%)	55.2 ± 7.0	2.220*	51.7 ± 5.5	0.587*
	Son	67(33.5%)	60.3 ± 8.0		50.5 ± 6.8	
	Daughter	21(10.5%)	60.4 ± 8.6		48.8 ± 6.4	
	Other relatives	84(42%)	58.9 ± 7.9		50.3 ± 6.7	
	Friend	1(0.5%)	59.2 ±		49.5 ±	
ANOVA 'p' value			0.068		0.672	
Number of family member in patient family	2-4	87(43.5%)	60.3 ± 7.9	1.920#	49.8 ± 5.9	-1.195#
	4-7	113(56.5%)	58.1 ± 8.0		50.9 ± 6.9	
Independent sample 't' test 'p' value			0.056		0.233	

* 'F'- value, # - 't' value

The table above presents the comparison of average quality of life scores among caregivers based on their socio-demographic characteristics. It shows that the quality-of-life score varied significantly based on age group, with younger and older caregivers experiencing different levels of quality of life. However, age group did not significantly affect coping strategies. Factors such as gender, income, duration of disease condition, dependency of patients on activities of daily living, and relationship with the patient did not have a significant impact on quality of life and coping strategies. On the other hand, educational status significantly influenced quality of life, with caregivers having higher education levels reporting higher average quality of life scores. Private employees also had significantly higher quality of life scores compared to other employment types. Marital status did not affect quality of life and coping strategies, except for divorced caregivers who had significantly higher quality of life scores. Family size did not have a significant impact on quality of life and coping strategies. In the present study the results shows that, mean quality of life score was 59.0 ± 8.0 with median 57.7. This implied the quality of life was worst affected due to the role of care givers for cardiovascular patients. In a study conducted by Waldron and Janke, adult cancer caregivers were examined from 1947 to 2011. The researchers sought studies that utilized randomization, control groups and measured caregiver quality of life with at least one active psycho social intervention. After reviewing 1066 abstracts, six randomized controlled trials met the criteria Studies were excluded due to methodological flaws and lack of caregiver quality of life measurement. A total of 1115 caregivers were included in the baseline measurements, and the estimated effect sizes ranged from nil to small.¹⁴

In the present research study the results shows that, the mean coping strategies score was 50.4 ± 6.5 with median 49.5. Half of the care givers have score more than 49.5. This implied that the care givers are adopting different coping strategies to manage the depression of care giving. Nevertheless the coping strategies score indicated the care givers need more counselling to cope-up with the depression of care giving. A study was conducted by Evridiki Papastavrou, Andreas Charalambous, informal caregivers of patients with cancer coping strategies employed. Use of a convenience sample of 130 dyads. Consenting patients identified their primary

family caregiver who was asked to participate in the study. The majority of the caregivers employed emotionally focused ways of coping with the caregiving burden mean 2.19, I was hoping that time would change things and simply waited mean 2.14 and found consolidation in my faith to god mean 2.05, assertive ways of coping mean 0.78 and I dared to do something riskey mean 0.98 were less likely to be used by the caregivers.¹⁵

Conclusion

The study findings indicate that caregiver has a greater impact on the quality of life of young individuals compared to the elderly. It was observed that there is a notable negative relationship between quality of life and coping strategies, suggesting that higher quality of life scores are associated with lower coping strategy score. On the other hand, better coping strategies are linked to better quality of life. Caregivers utilize a range of coping strategies, and counseling can play a vital role in offering emotional support, guidance, and practical advice to assist caregivers in managing the challenges they face maintaining their well-being while caring for cardiovascular patients.

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