Original article

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Stress and Coping Strategies among Caregivers of Patient Admitted in Intensive Care Unit of Selected Hospital, Parsa

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ABSTRACT

Background: Having one's own family member admitted to the ICU is perplexing experience for the family. During this period, families deal with many stressors, including role changes, financial concerns, and uncertain patient prognosis. Coping strategies differ individually, involving actions of self-regulation of emotions, cognition, behaviors, and motivational orientation. This study aims to assess the stress levels and coping strategies among caregivers of patient admitted in intensive care unit.

Methods: A descriptive cross-sectional study was conducted at Narayani Hospital, Parsa, with 104 caregivers selected through non-probability convenience sampling. The Kingston Caregiver Stress Scale and Brief COPE Inventory was used to collect data. Data were analyzed by using descriptive statistics such as frequency, percentage mean and inferential statistics such as chi-square in Statistical Package for Social Science version 20.

Results: The more than two thirds of caregivers 67.3% experienced moderate stress, while 2.9% had severe stress. Regarding coping, 58.65% showed average coping. Statistically significant associations were found between stress and coping with variables like age, marital status, occupation, residence, and time spent with the patient.

Conclusion: Most caregivers faced moderate stress and adopted average coping strategies. These findings emphasize the importance of supportive interventions tailored to the needs of young, urban, and low-income caregivers.

Keywords: *Caregivers, coping strategies, intensive care unit, stress*

INTRODUCTION

Stress is the non - specific response of the body to any kind of demand made up to it. Stress arises when an individual is unable to cope with a particular situation. Intensive Care unit is a highly stressful and complex environment with significant, unfavorable physical, psychological and functional consequences for both caregivers and clients. Mostly family members or relatives are the caregivers.[1] Admitted in intensive care units generates high degree of psychological distress, anxiety to their loved one, this event demanding coping strategies to deal with it and to minimize the consequences arising from stressors. coping strategies is a cognitive and behavioral efforts to minimizing, avoiding, or tolerating specific external and/or internal demands. Intensive care units environment was challenging , threatening or damaging the dynamic equilibrium of caregivers life .[2]Additionally 22%-72.5% prevalence of stress among caregivers shows on different study .Mostly caregivers had coping strategies to focus on problem and emotion but still doesn't have any appropriate coping strategies .[3]

The ICU setup perceived as aggressive and threatening space because patient undergoing painful procedures and high risk of unexpected death Subsequently ICU environment trigger the behaviors such as doubt, helplessness, mental disorganization, inability to take action when faced with unexpected decision. [4] For overcoming the stress caregivers used several coping

strategies. Treatment in the ICU requires family adaptations, considering that relatives experience a crisis with unexpected transitions, as well as interruption of the daily routine, in addition to labor, financial, and family organization difficulties. Therefore, essential to assessing the stress and their coping strategies among caregivers of patient admitted in intensive care unit. [5]In context of Nepal research on stress and coping strategies among caregivers of patient admitted in ICU is still scarce despite of maximum study shows high degree of stress among caregivers as well as only average and avoiding coping strategies. So, this study aimed to assessed the stress and coping strategies among caregivers of patient admitted in Intensive care unit at selected hospital, Parsa.

METHODS

A descriptive cross-sectional study design was used to assess stress and coping strategies among caregivers of patient admitted in intensive care unit to Narayani Hospital in the Parsa district. The intensive care unit consisted of the adult intensive care unit and coronary care unit with a total of 17 beds. The target population included caregivers of patient admitted in intensive care unit. 104 sample was selected using a consecutive sampling technique. Inclusion criteria of this study were caregivers aged 18 years and older, A caregivers who had been in the ICU for a period of at least 24 hours and at least two family members who stay with patient and actively participated in patient daily care. Exclusion criteria were caregivers whose patient was discharge within 24 hours or admitted patient death or refer to higher center. Kingston caregivers stress scale and Brief coping orientation to problems experienced scale was used. Permission was taken via sending mail to concern authors of these tools. A structured interview schedule was used to collect the data, following approval from Permission was obtained from the research management cell of Birgunj Nursing Campus, Institutional Review Committee (IRC) of Maharajgunj Kathmandu and permission from Narayani hospital. Before data collection, informed verbal and written consent was obtained from respondents. Participant's dignity was maintained by giving the right to reject or discontinue the research study at any time. Data was collected through an interview schedule from two caregivers of each patient who met the inclusion criteria and were present during the data collection period. The average time for data collection with participants about 20-25 minutes. The collected data was entered on the same day by the researcher herself. The findings were analyzed by using descriptive statistics such as frequency, percentage, mean and standard deviation. Inferential statistics used to find out association between stress and coping strategies with age, sex, marital status, religion, occupation status, area of residence, distance from hospital, family annual income, type of family and it was measured with chi-square. Analysis was done through SPSS (Statistical Package for Social Science) version 20.

RESULTS

Table 1 represents the Background characteristics of the caregivers in the study. The mean age was 35.18 ± 13.37 years, with the largest proportion 45.2% aged between 18–29 years. More than two-thirds 76.0%were male**.** Regarding occupation, 48.1% were engaged in business, while the others category 1.9% included government teachers and police personnel. In terms of the caregiver's relationship with the patient 35.6%were son or daughter. The others category 7.7% included daughters-in-law, grandparents, aunts, and fathers-in-law**.**

Table 1: Background information of caregivers n=104

Variables	Number	Percent
Age (in Years)		
18–29	47	45.2
29–39	34	32.7
39–49	7	6.7
49–59	8	7.7
Above 60	8	7.7
Mean ± SD	35.9 ± 13.4	
Sex		
Male	79	76.0
Female	25	24.0
Marital status		
Married	71	68.3
Unmarried	33	31.7
Education		
Illiterate	16	15.4
Basic level (1–8)	57	54.8
Secondary level (9–12)	29	27.9
Bachelor and above	2	1.9

Variables	Number	Percent
Religion status		
Hindu	83	79.8
Muslim	19	18.3
Christian	2	1.9
Occupation status		
Business	50	48.1
Agriculture	34	32.7
Homemaker	16	15.4
Daily wages	2	1.9
Others	2	1.9
Area of residence		
Urban	62	59.6
Rural	42	40.4
Distance from hospital		
≤5 hours	70	67.3
>5 hours	34	32.7
Family annual income		
Less than 3 months	91	87.5
sufficient for 3-6 month	13	12.5
Relation with patient		
Offsprings	37	35.6
Spouse	36	34.6
Siblings	23	22.1
Others (Grandparents, daughter in law)	8	7.7
Type of family		
Nuclear	34	32.7
Joint	70	67.3
Time spent with patient		
<12 hours	13	12.5
12–48 hours	54	51.9
More than 48 hours	37	35.6
History of any diagnosed illness		
No	104	100.0

Table 2 represents that more than two thirds (67.3%) of the respondents experienced moderate stress.

Table 2: Stress level among caregivers n=104

Stress level	Number	Percent
Mild stress	31	29.8
Moderate Stress	70	67.3
Severe Stress	3	2.9
Mean ±SD	16.3±3.3	

Table 3 represent 58.65% of the respondents had average coping. More than two-thirds76.0%were male.

Table 3: Coping strategies among caregivers n=104

Coping Strategies	Number	Percent
Poor Coping	33	31.73
Average Coping	61	58.65
Well Coping	10	9.62
Mean±SD	67.3±17.5	

Table 4 represents the association between stress levels and various factors among caregivers. Statistically Significant associations were found with age (p= 0.004), occupation (p=0.031) marital status (p=0.001), area of residence (p= 0.041) and time spent with the patient (p= 0.001). Statistically no significant associations were observed with sex, education, religion, income, relationship with the patient, or family type. The others category in religion included Muslims and Christians, in occupation included homemakers and daily wage workers, and in relationship included children, parents, siblings, and grandparents.

Table 4: Association between the level of stress and selected variables n=104

Variables	Mild Stress N (%)	Moderate to severe Stress N (%)	$\chi 2$	p-value
Age (in years)				
≤40 Years	28 (34.57)	53 (65.43)	3.961	0.004*
> 40Years	3 (13.04)	20 (86.96)		
Sex				
Male	26 (32.91)	53 (67.09)	1.513	0.212
Female	5 (20.00)	20 (80.00)		
Marital status				
Married	15 (21.13)	56(78.87)	8.051	0.001*
Unmarried	16(48.48)	17(51.52)		
Education				
No formal education	2 (12.50)	14 (87.50)	2.701	0.133*f*
Formal education	29 (32.95)	59 (67.05)		
Religion				
Hindu	26 (31.33)	57 (68.67)	0.454	0.504
Others	5 (23.81)	16 (76.19)		

Variables	Mild Stress N (%)	Moderate to severe Stress N (%)	χ2	p-value
Occupation				
Business	21 (42.00)	29 (58.00)		
Agriculture	7(20.59)	27 (79.41)		
			7.032	0.031*
Others	3(15.00)	17 (85.00)		
Area of residence				
Rural	8 (19.05)	34 (80.95)	3.896	0.041*
Urban	23 (37.10)	39 (62.90)		
Distance from hospital				
≤5 hours	19(27.14)	51 (72.86)	0.722	0.391
> 5 hours	12 (35.29)	22(64.71)		
Family annual income				
less than 3 month	29(31.87)	62(68.13)	1.472	0.331*f*
Sufficient for 3-6 month	2(15.38)	11(84.62)		
Relationship with patient				
Spouse	8(22.22)	28 (77.78)		
others	23(33.82)	45 (66.18)	1.512	0.211
Types of family				
Nuclear	8(23.53)	26(76.47)	0.951	0.322
Joint	23(32.86)	47(67.14)		
Time spent with patient				
≤ 48 hours	13(19.40)	54(80.60)	10.791	0.001*
> 48 hours	18(48.65)	19(51.35)		

** p-value significant at <0.05 f=Fisher exact test*

The analysis reveals significant associations between caregiver coping levels with the caregivers Education status (p= 0.001), distance from hospital (p= 0.001) and family annual income (p=0.001). Respondents with formal education and higher income had average coping. (Table 5)

Table 5: Association between the Coping Strategies with Selected Variables of caregivers n=104

Variables	Poor Coping N (%)	Average to Well Coping N (%)	χ2	p-value
Age (In years)				
≤ 40 Years	24(29.63)	57 (70.37)	0.741	0.380
> 40 Years	9 (39.13)	14 (60.87)		
Sex				
Male	26 (32.91)	53 (67.09)	0.211	0.641
Female	7 (28.00)	18 (72.00)		
Marital status				
Married	24 (33.80)	47 (66.20)	0.442	0.500
Unmarried	9 (27.27)	24 (72.73)		
Education				
No formal education	11 (68.75)	5 (31.25)	11.933	0.001*f*
Formal education	22(25.00)	66(75.00)		
Religion				
Hindu	26 (31.33)	57 (68.67)	0.034	0.861
Others	7 (33.33)	14 (66.67)		
Occupation				
Business	16 (32.00)	34 (68.00)	2.681	0.262
Agriculture	8 (23.53)	26 (76.47)		
Others	9 (45.00)	11 (55.00)		
Area of residence			0.323	0.561
Rural	12 (28.57)	30 (71.43)		
Urban	21 (33.87)	41 (66.13)		
Distance from hospital				
≤5 hours	32 (45.71)	38 (54.29)	19.322	0.001*f*
>5 hours	1 (2.94)	33 (97.06)		
Family annual income				
Less than 3 months	25 (27.47)	66 (72.53)	9.131	0.001*f*
sufficient for 3-6 month	8 (61.54)	5 (38.46)		
Relationship with patient				
Spouse	12(33.33)	24 (66.67)	0.062	0.791
others		47 (100.00)		
Types of family				
Nuclear	10 (29.42)	24 (70.58)	0.122	0.723
Joint	23 (32.85)	47 (67.15)		
Time spent with patient				
≤ 48 hours	22 (32.83)	45 (67.17)	0.101	0.742
> 48 hours	11 (29.72)	26 70.28)		

** p-value significant at <0.05 f=Fisher exact test*

DISCUSSION

This study assessed stress levels and coping strategies among 104 caregivers of patients admitted to the Intensive Care Unit (ICU). The mean age of caregivers was 35.18 ± 13.37 years, with 45.2% aged 18–29 years and 32.7% aged 29–39 years. The majority were male 76.0%, married 68.3%, and from urban areas 59.6%, with 67.3% living in joint families. Educational attainment was predominantly basic 54.8, followed by secondary 27.9%, consistent with previous studies reporting low educational levels among caregivers. [7] Nearly half 48.1% were engaged in business, while 32.7% were homemakers. A large proportion 58.5% had low monthly income, and most reported family income sufficient for less than three months, indicating significant financial vulnerability, a factor previously associated with increased caregiver stress .[8]Most caregivers 67.3% resided within five hours of the hospital, and 35.6% were sons/daughters of the patients, followed by spouses 34.65%, similar to findings identifying adult children as primary caregivers.[9] Regarding stress levels, 67.3% of caregivers experienced moderate stress, 29.8% reported mild stress, and 2.9% had severe stress, with a mean stress score of 16.33 ± 3.94.

These findings align with one study who reported moderate stress in 67.2% of caregivers.[10]Significant associations were observed between stress and age (p = 0.04), occupation (p = 0.009), area of residence (p = 0.04), and time spent with the patient (p = 0.001). corroborating findings from India indicating greater stress among male caregivers and those with travel burdens .[11]Notably, caregivers spending ≤48 hours in the ICU reported higher stress levels, potentially due to acute exposure to the ICU environment without adequate psychological support.[12] No significant associations were found with gender, religion, marital status, relationship with the patient, or family type.

Most caregivers 68.3% demonstrated average coping abilities, 21.2% had poor coping, and 10.6% had good coping strategies. Significant associations were found between coping and educational status (p = 0.00), monthly income (p = 0.00), and distance from the hospital (p = 0.00). Caregivers with higher education and stable income employed more adaptive coping strategies.[13] while those residing closer to the hospital demonstrated better coping, possibly due to greater social and familial support, consistent with one study . Variables such as age, gender, religion, marital status, occupation, area of residence, relationship with the patient, family type, and time spent with the patient did not show significant associations with coping.

CONCLUSION

On the basis of study findings, its is concluded that most caregivers of patients admitted in intensive care units experience moderate stress and relied on average coping. Stress was associated with age, occupation, income, and time spent with the patient while better coping was associated with higher education, sufficient income, and lesser distance from the hospital. These findings highlight the need for emotional support and coping interventions to ease the burden on caregivers and improve their overall well-being.

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CONFLICT OF INTEREST: None

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