



## RESEARCH ARTICLE

# SLEEP DISTURBANCE, ANXIETY, FATIGUE AND COPING STRATEGIES ADOPTED BY THE FAMILY MEMBERS OF PATIENTS ADMITTED TO INTENSIVE CARE UNIT IN SELECTED HOSPITALS OF EAST SIKKIM

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### ABSTRACT

**Background:** Patients admission in an intensive care unit is a distressing event for both patient and their family member. It is usually unexpected and sudden, whereby families might suffer uncertainty and shock that may precipitate familial disequilibrium due to lack of preparedness of the situation. Family's coping contributes a great deal in patient's recovery. The main focus of health care provider is on patients and not towards the family members who are in a state of crisis and need some sort of assurance to cope with the situation. The study tries to find out the level of sleep disturbance, anxiety, fatigue and most importantly the coping strategies adopted by the family members. **Methods:** A descriptive cross sectional study was conducted wherein 113 samples were selected by non probability purposive sampling technique from selected hospitals of East Sikkim. The data was collected by using Pre structured sleep disturbance questionnaire and Standardized tool (Chalder Fatigue scale, and Coping strategies inventory). Data were analysed by using SPSS version 25. **Results:** The study finding revels that majority of the samples who experienced sleep disturbance was 64.6 %, severe fatigue 63.3% and 85.8% of the sample experienced high level of anxiety. Positive coping strategy adopted by family members was found to be 61.07% and negative was 38.93%. **Conclusion:** The study findings revealed that family members of patient admitted in intensive care unit experienced sleep disturbance, anxiety and severe fatigue. Although majority of the family members used positive coping, the family members who used negative coping contributes 38.93 % which should be of concern.

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## INTRODUCTION

Admission in Intensive care unit is an unanticipated event and it imposes various physiological and psychological changes, sleep disturbances, anxiety, fatigue, and stress being some of the problems commonly experienced by the family members during the stay of loved ones in the hospital. Patients admission in an intensive care unit is a distressing event for both patient and their family member. It is usually unexpected and sudden, whereby families might suffer uncertainty and shock that may precipitate familial disequilibrium. It has been suggested that the patient's response to intensive care management and treatment, and subsequent recovery is dependent on the family's coping abilities during this traumatic time (Rohja Ritu, 2017).

According to Centers for Disease Control and Prevention (CDC), adults who are short sleepers(less than 7 hours per 24 hours period) are likely to suffer from 10 chronic health condition (Heart attack, Coronary heart disease, Stroke, Asthma, Chronic obstructive pulmonary disease, Cancer, Arthritis, Depression, Chronic kidney disease, Diabetics) (Zhang, 2014). Sleep plays a fundamental role in the recovery process of fatigue but other functions can be dependent of it as well. Stress is considered the primary cause of persistent psycho physiological insomnia (WHO, 2014). The consequences of sleep deprivation can be grouped under behavioural: it includes sleepiness, mood changes, irritability and nervousness, depression, anxiety, mania. Cognitive: sleep deprivation can affect newly learned skills and short term memory.

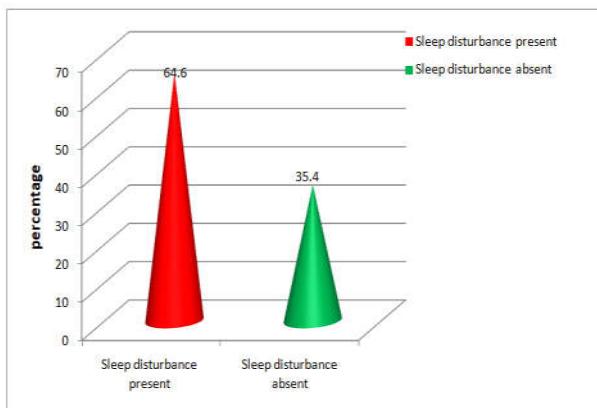
It becomes difficult to manage complex tasks. Neurological: cerebral ataxia, nystagmus, tremors, slurred speech, may be seen in person who had deprived sleep. This symptom is mild and quickly reversible. Biochemical: it can manifest with increase metabolic rate and elevated resistance to insulin (Hall Bolton). In India nearly 5 million patients are admitted in Intensive care unit every year (Jayaram, 2008). Short term consequences of sleep in healthy individuals can result in somatic and psychological problem and long term consequences are cardiovascular disease, obesity, Type II Diabetes mellitus and death (Medic, 2017).

## MATERIALS AND METHODS

A descriptive cross sectional study was conducted in the selected hospitals of East Sikkim. For this study the sample taken were family members of patient admitted in intensive care unit and who had been providing care for 2 days or more. 113 samples were selected by non probability purposive sampling technique. The data was collected by using Pre structured sleep disturbance questionnaire for assessing the sleep disturbance and Standardized tool (Chalder Fatigue scale, and Coping strategies inventory)was used for data regarding fatigue and coping. The technique used for collecting data was self report. Data were analysed by using SPSS version 25.

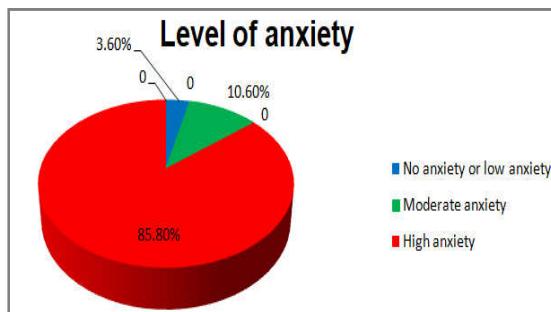
## RESULTS

Findings related to demographic data revealed that out of 113 samples, majority 49 (43.4 %) of the samples belonged to an age group of 31-42 years, 66 (58.4%) were male, 60 (53.1%) were Hindu by religion, 35 (31%) had an education qualification up to secondary education, 37 (32.7%) of them had government job and majority 27 (23.9) % of the samples relationship with the patient was found to be mother and 27 (23.9 %) had monthly income of 30,001-40,000.



**Fig 1. Sleep disturbance among family members of patients admitted in intensive care unit**

Findings related to patient clinical profile revealed that majority 77 (66.4%) of patient admitted in Intensive care unit belongs to age group of 55 years and above, 18 (15.9%) were diagnosis with CKD with HTN,T<sub>2</sub>DM and 75 (66.4%) patient's duration of stay in Intensive care unit was 2-5 days. Findings related to sleep disturbance, anxiety and fatigue revealed that among 113 family members of patient admitted in intensive care unit majority 64.4% had experienced sleep, out of which 16.44% experienced mild, 12.33% experienced

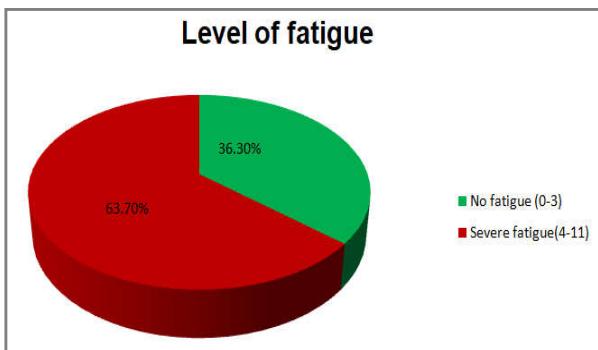


**Fig. 2. level of anxiety among family members of patient admitted in Intensive care unit**

moderate and 71.24% experienced severe sleep disturbance and majority 97 (85.8%) of the sample experienced high level of anxiety and 72 (63.3%) experienced mental and physical fatigue. Findings related to coping revealed that most common coping strategies adopted by the samples were Emotional focused Engagement(positive coping strategies) which contributed to 32.8%, followed by Problem focused Engagement (positive coping strategies) 31.0%, Problem focused disengagement (negative coping strategies) 25% and Emotional Focused Engagement (negatives coping strategies) 11.2 %. Hence it was found that majority of the samples adopted positive coping strategy which was found to be 61.07 %. Findings related to correlation and association revealed that there was no significant correlation between sleep disturbances, anxiety and fatigue with coping strategies and there was no significant association between demographic and clinical profile with coping strategies.

**Table no 1. Frequency and percentage distribution of demographic proforma of family members N=113**

Sl. No.	Demographic variable	Frequency(f)	Percentage (%)
1	Age in years		
	19-30 years	42	37.2
	31-42 years	49	43.4
2	43 years and above	22	19.5
	Gender		
3.	Male	66	58.4
	Female	47	41.6
4.	Religion		
	Buddhist	23	20.4
	Christian	25	22.1
	Hindu	60	53.1
	Muslim	5	4.4
5.	Educational qualification		
	Primary education	21	18.6
	Secondary education	35	31.0
	Higher secondary	29	25.7
	Graduation and above	28	24.8
6	Occupation		
	Private job	20	17.7
	Government job	37	32.7
	Self employment	24	21.2
	Unemployment	10	8.8
	Others	22	19.5
7	Relation with family member		
	Father	19	16.8
	Mother	27	23.9
	Daughter	3	2.7
	Son	4	3.5
	Spouse	22	19.5
	Sibling	24	21.2
	Grand parents	8	7.1
	In laws	4	3.5
	Others	2	1.8
8	Monthly family income		
	<10,000	20	17.7
	10,001-20,000	17	15.0
	20,001-30,000	23	20.4
	30,001-40,000	27	23.9
	>40,000	26	23.0
9	Illness of family member		
	Yes	11	9.7
10	No	102	90.3



**Fig 3: level of fatigue experienced by family members of patient admitted in intensive care unit**

**Table No. 2. frequency and percentage distribution of clinical profile of patient**

Sl no	Clinical profile of the patient	Frequency(f)	Percentage (%)
1.	Age of patient		
	a.19-30 years	7	6.2
	b. 31-42 years	7	6.2
	c.43-54 years	24	21.2
	d. 55 years and above	75	66.4
2.	Diagnosis of patient		
	CKD with HTN, T <sub>2</sub> DM	18	15.9
	COPD with HTN, T <sub>2</sub> DM	7	6.2
	CAD with T <sub>2</sub> DM, HTN	16	14.2
	Heart failure	9	8.0
	Respiratory failure	6	5.3
	CVA with HTN, T <sub>2</sub> DM	6	5.3
	CLD/CAD	12	10.6
	MI	10	8.8
	RTA	4	3.5
	UGI Bleed	7	6.2
	Seizure disorder	2	1.7
	Cancer (Supraglottitis& stomach)	3	2.9
	Bacterial sepsis	2	1.7
	Meningitis/aspiration pneumonia	2	1.7
	TAH-BSO	2	1.7
	Craniotomy	2	1.7
	Head injury	2	1.7
	Others	3	2.9
3.	Duration of stay in ICU		
	2-5 days	19	16.8
	6-8 days	11	9.7
	9-12 days	8	7.1
	13 days and above		

## DISCUSSION

In the present study, among 113 family members of patient admitted in the intensive car unit, 64.6% had experienced sleep disturbance, 85.8% of family members had experienced high anxiety and 63.3% of family member of patient admitted in Intensive care unit had experiences severe fatigue. The study is congruent to a study conducted by Celik S et al, Sleep problems, anxiety, depression and fatigue on family members of adult intensive care unit patients. The study was conducted among 350 first degree relatives of intensive care patients at university and state hospital, Turkey. Finding reveals that 76% reported moderate or severe sleep problems; anxiety was reported by 81.4% of the relatives, depression by 94.2% and fatigue by 79.42% (Celik, 2016).

Similar finding was also found in a cross-sectional survey study conducted at the University of Maryland Medical Canter, Johns Hopkins University Hospital, and Christiana Hospital on Half of the family members of critically ill patients experience excessive daytime sleepiness. The study finding reveals among 225 family members 50.2 % (113/225) had Epworth scores consistent with excessive daytime sleepiness (Pawl, 2013).

## CONCLUSION

On the basis of the present study, the conclusion can be drawn that caring for the patient admitted in intensive care unit leads to varied physical and psychological consequences among family members. Family members face various challenges such as emotional crisis, financial crisis as well as social crisis, so they adopts varied types of coping strategies(engagement and disengagement) to balance between different spheres of life. These types of studies are important to provide knowledge to health care provider, so that they can give intervention to family member in various ways to cope with the situation.

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