

## Study of Caregiver Burden in Delirium

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### ABSTRACT

**Objectives:** Objectives of this study are to study the aetiology of patients of delirium in old age, to study the severity of delirium in old age, to study the burden of family care givers in delirium patients and to study the relationship between severity, aetiology of delirium with the burden severity in family caregivers. **Design:** Prospective, observational, and cross sectional. **Setting:** Inpatient tertiary care hospital setting. **Participants:** Subjects with the diagnosis of Delirium qualifying according to ICD-10 (international classification of disease-10) and confirmed with CAM scale aged >60 years and Patient or patient's family members willing to give consent. **Measurements:** Sociodemographic questionnaire, Confusion assessment method, Delirium index, Delirium aetiology check list, ICD -10 DCR, Care giver burden scale and The Barthel index are the instruments used. **Results:** 62.5 percent of the subjects are males. 37.5 percent subjects are females. 42.5 percent of the caregivers are male, and 57.5 percent of caregivers are females. 27.5 percent of the care givers are spouses, 35 percent parents, 15 percent children, 10 percent siblings, 12.5 percent others. 30 percent of the subjects are single, 42.4 percent are married, 27.5% widow. 57.5 percent of the subjects are hindu, 42.5 percent muslims. 17.57 percent of subjects are illiterate, 27.5 percent are up to 5<sup>th</sup>, 35 percent are up to 10<sup>th</sup>, 20 percent are up to 12<sup>th</sup> standard. 12.5 percent subjects are unemployed, 30 percent are unskilled/semiskilled, 25 percent are skilled, 17.5 percent are professionals, 7.5 percent are housewives, 7.5 percent are retired. 42.5 percent are urban residents, 57.5 percent are rural residents. 37.5 percent have duration of delirium less than 1 week, 45 percent have duration of delirium 2-4 weeks, 17.5 percent have duration of delirium more than 1 month. 25 percent subjects have family history of delirium, 75 percent have no family history of delirium. 95 percent developed delirium while on medical treatment, 5 percent developed delirium after surgical treatment. 32.5 percent have no substance use, 22.5 percent have tobacco use, 10 percent have alcohol use, 35 percent have multiple substance use. 85 percent subjects have a precipitating factor and 15 percent have no precipitating factor for the development of delirium. 17.5 percent have diabetes mellitus, 17.5 percent have systemic hypertension, 5 percent have tuberculosis, 10 percent have other medical co morbidities, 50 percent have multiple co morbidities. There is no significant association between gender of the subject and care giver burden. There is no significant association between caregiver relation and care giver burden. There is no significant association between duration of delirium and care giver burden. There is significant difference between care giver burden and delirium aetiology checklist. Moderate to severe and severe burden are maximum

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Received: October 20, 2022; Revision Received: December 25, 2022; Accepted: December 31, 2022

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in subjects with multiple co morbidities and infection. There is no significant association between Barthel index and care giver burden. There is no significant association between delirium index/severity of delirium and care giver burden. **Conclusions:** In this study results showed that there is significant association between delirium is an acute illness with sudden onset with maximum percentage of duration 2-4 weeks, delirium is more in males than females, majority of the care givers are spouses and parents, multiple aetiologies, diminished psychological QoL are associated with increased care giver burden. Family history of delirium is associated with better care giver burden. Employed subjects with delirium have better overall QoL. As duration of delirium increases, delirium severity increases.

**Keywords:** *Burden, Caregiver, Delirium*

The word delirium is derived from the Latin word delirare, which connotes "crazy or to rave". It has been written in clinical literature for more than 2000 years, with dependable portrayal. It was Hippocrates, who used the words phrenitis (furor) and lethargus (sluggishness) to portray the hyperactive and hypoactive subtypes of delirium. The term delirium was first used by Celsus in this century A. D. to portray mental issues related with fever or head injury. The terms used as alternative are "exceptional confusional state," "serious psyche condition," "extreme cerebral insufficiency," and "destructive metabolic encephalopathy". Delirium is as of now the supported term, and it has been prescribed that extraordinary confusional state should be the solitary recognized substitute term for this issue. According to the current DSM norms delirium is depicted by the sudden onset of signs that change during the very day with a changed level of consciousness, overall disturbance of or perceptual agitating behaviour and verification of medical condition or substance use, or various etiologies.<sup>1,2</sup> It is a general issue in hospitalized old patients Its finding relies upon history, key features on examination, and physical and clinical examination. The aetiology of delirium is ordinarily multifactorial, for the most part from a blend of different factors. Pathophysiological frameworks remain insufficiently low neurotransmitter level, aggravation, or extreme biological factor responses.<sup>3,4</sup>

Non-pharmacological management have been seen as the essential line of treatment which consolidates, from the start, the evidence of fundamental causes and consistent attention, incorporation of the environment in the treatment of delirium. Delirium is critical in clinical consideration structure, and they are ignored by physicians and specialists.<sup>5</sup> This is sensible if delirium was unavoidable or untreatable, at this point the current identification of the condition is enough ground-breaking for expectation of the condition to be a useful way. Proper treatment is generally basic to reduce suffering and distress. The role of care givers and physicians and nurses are equally important in the management of delirium. Confusion makes specific difficulty in patients and family caregivers. Early treatment of the illness results is major threat these negative outcomes.<sup>6</sup> Family members who are told about delirium could collaborate with clinical specialists in early identification of signs.

### REVIEW OF LITERATURE

Delirium is a typical and common condition among the old, especially in hospitalized patients, influencing up to 30% of this patients .Most ongoing study report a predominance of 10–31% on outpatient and a rate of 3–29% during hospitalization .This risk increments dramatically in ICU's, with prevalence paces of up to 80% and in palliative units, where it is accounted for to be pretty much as high as 85% .Higher rates are likewise noted in careful settings with a rate answered to go from 10 to 70% after medical procedure ,particularly in patients going through cardiothoracic medical procedure, orthopaedic, vascular medical

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procedure. Studies among old individuals admitted in emergency have revealed 5–30%. Despite long stay, nursing home occupants address a poor outcome, yet a couple of studies have been completed. In a new report the predominance of delirium has been assessed somewhere in the range of 3.4 and 33.3%.<sup>7,8</sup> Besides, there is proof from the set of experiences, actual assessment, or lab report is brought about by the direct physiological results of an overall ailment, or substance use/withdrawal, or because of various aetiologies. This definition has the upside of covering an expansive clinical range, however it likewise suggests incredible variety. The regions of neurological capacity distinguished are for sure wide and can scarcely be credited to the action of discrete cerebral constructions. Likewise, questionable is the understanding that the condition is brought about by various etiological elements to effect on a last basic pathway creating clinical outcomes. Abrupt and isudden beginning and fluctuating course are the focal highlights of delirium. In this manner, it is critical to build up the patient's intellectual working and the course of psychological change, Symptom variance is likely. They might be irregular, and are regularly around evening time.<sup>9,10</sup>

In delirium, the disturbance of consciousness is one of the earliest manifestations, which often fluctuates, mainly in the evening when environmental stimulation is at its lowest. The level of consciousness may fluctuate between extremes in the same patient, or alternatively may present with more subtle signs, such as mild drowsiness, or an impaired level of attention.<sup>11</sup> In fact, the patient may appear obviously drowsy, lethargic, or even semi-comatose in more advanced cases. The opposite extreme, hyper-vigilance, may also occur, especially in cases of alcohol or sedative drug withdrawal (less common in elderly people. Attention is the process that enables one to select relevant stimuli from the environment, to focus and sustain behavioural responses to such stimuli, and to switch mental activity toward new stimuli, reorienting the individual behaviour, according to the relevance of the stimulus.<sup>12,13</sup>

### *Subsyndromal Delirium*

Since the distribution of a sets of analytic factors, for example, ICD 10 and DSM V, there has as of late arose another idea known as subsyndromal delirium. This condition has been characterized as the presence of at least one centre indicative manifestations that don't meet the full models for delirium, and where full delirium doesn't happen. The major side effects were inattentiveness, decreased degree of awareness, mild bewilderment, and perceptual changes. From a clinical viewpoint, a few creators have recommended an elective term: "second rate confusional state." This accentuates the need to rate the seriousness of confusional states – gentle, moderate, extreme – contrary to the exacting idea of DSM-V. As proposed by **Voyer et al. (2009)**, these standards, when applied in a real sense, produce underestimation of delirium. Subsyndromal delirium happens in 21–76% of hospitalized old individuals.<sup>14,15</sup> Prevalence of 30-m50 % have been accounted for in serious consideration units (**Ouimet et al., 2007**).<sup>16</sup>

### *Aim and Objectives of the Study:*

#### *Aim*

To study the severity and aetiology of delirium of old age in the in-patients and burden of their family care givers.

#### *Objectives*

- To study the aetiology of patients of delirium in old age

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- To study the severity of delirium in old age
- To study the burden of family care givers in delirium patients
- To study the relationship between severity, aetiology of delirium with the burden severity in family caregivers.

### **MATERIALS & METHODOLOGY**

*Site of Project:* Tertiary care centre, Lucknow

**Type of Study:** Prospective

*Period Of Project:* January 2020 to June 2020

**Sample Size and Population:** Based on previous studies sample size is calculated to be 40.

$N = t^2 \times p(1-p)/d^2$ . Standard Deviation of delirium severity score

$t^2 = (1.96)^2 = 3.84$  normal deviate for 95% confidence limit

$P = 0.66$

$q = 0.34$

$= 3.6^{11}$

Sample calculated is 14. Sample size to be taken for this study is 40.

#### **Inclusion Criteria-**

1. Diagnosis of Delirium qualifying according to ICD-10 (international classification of disease-10) and confirmed with CAM scale.
2. Age >60 years
3. Patient or patient's family members willing to give consent.

#### **Exclusion Criteria**

1. Patients/caregivers who are not willing to provide consent.
2. Primary caretaker is not available.

#### **Details Of Ethics Approval/Consent:**

From the institutional ethics committee KGMU/2020 no.1391/ethics

#### **Materials/Apparatus/Questionnaires Used to Collect Data:**

1. Sociodemographic questionnaire
2. Confusion assessment method
3. Delirium index
4. Delirium aetiology check list
5. ICD -10 DCR
6. Care giver burden scale
7. The Barthel index

**The Confusion Assessment Method (CAM)** is a standardized evidence-based tool that enables non-psychiatrically trained clinicians to identify and recognize delirium quickly and accurately in both clinical and research settings. The CAM includes four features found to have the greatest ability to distinguish delirium from other types of cognitive impairment. There is also a CAM-ICU version for use with non-verbal.

**The Delirium Index (DI)** is an instrument for the measurement of severity of symptoms of delirium that is based solely upon observation of the individual patient, without additional

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information from family members, nursing staff or the patient's medical chart. Delirium index. DI is an instrument for assessment of severity of symptoms of delirium It was adapted from the CAM, with the intention that it could be used in delirium research by a research assistant (non-psychiatrist). It includes 7 of the 10 symptoms domains of CAM. Disorders of attention, thought, consciousness, orientation, memory, perception, and psychomotor activity), each scored on a scale from 0 (absent) to 3 (present and severe) using operational criteria for each score.

**Delirium aetiology checklist** is a checklist the attribution is made based on all the available clinical information covering 12 etiological categories (drug intoxication, drug withdrawal, metabolic/endocrine disturbance, traumatic brain injury, seizures, intracranial infection, systemic infection, intracranial neoplasm, systemic neoplasm, cerebrovascular, organ insufficiency, other CNS disorder, and other systemic disorder). Presence and suspected role of each cause is rated on a 5-point scale based on degree of attribution to the delirium episode, ranging from "ruled out/not present/not relevant" (score-0) to "definite cause" (score-4)

**The Caregiver Burden Scale** is a simple instrument composed of 22 questions grouped into five dimensions (general tension, isolation, disappointment, emotional involvement, and environment), covering important areas for caregivers, such as health, mental wellbeing, personal relationships, physical overload, social support, finances, and home environment. An overall score can be obtained, or individual scores can be obtained for each dimension, thereby facilitating the understanding of what specific dimensions most affect the caregiver. The questionnaire can either be administered by an interviewer or self-administered and takes about 10 min to complete.

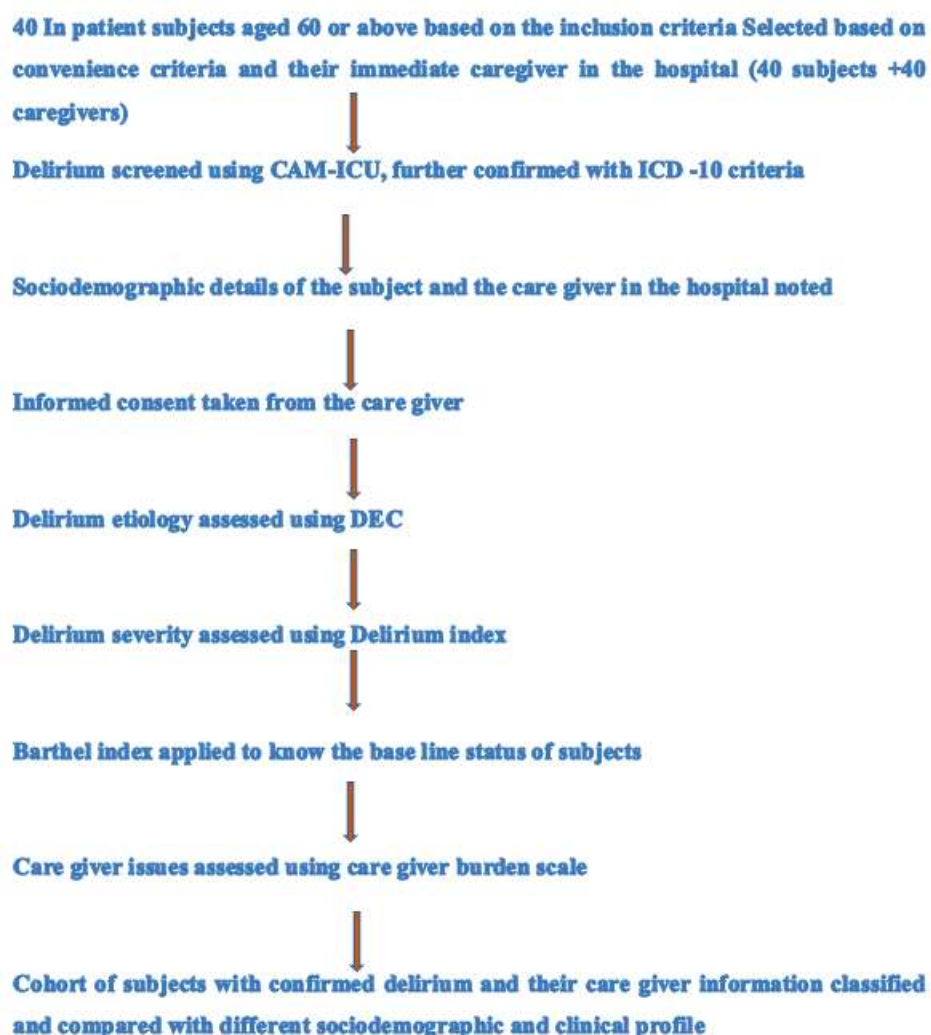
**The Barthel Scale/Index (BI)** is an ordinal scale used to measure performance in activities of daily living (ADL). Ten variables describing ADL and mobility are scored, a higher number reflecting greater ability to function independently following hospital discharge. Time taken and physical assistance required to perform each item are used in determining the assigned value of each item. The Barthel includes 10 personal activities: feeding, personal toileting, bathing, dressing, and undressing, getting on and off a toilet, controlling bladder, controlling bowel, moving from wheelchair to bed and returning, walking on level surface (or propelling a wheelchair if unable to walk) and ascending and descending stairs.

### ***Procedure of Collection of Data***

First 40 consecutive subjects fulfilling the inclusion criteria will be included in this study. The study included consenting subjects who have received a primary diagnosis of Delirium fulfilling the criteria as per ICD-10-DCR. They were selected based on convenience sampling from the hospitalised patients. After getting informed consent will be administered the above instruments. The socio-demographic characteristics and clinical details of the patient and the caregiver were noted using a questionnaire. Delirium diagnosed using ICD - 10 DCR and further confirmed using CAM. Severity of delirium assessed using Delirium index. Delirium aetiology check list applied with the cooperation of family members. Family care givers were assessed for burden severity using Care giver burden scale of care givers. Baseline measurement of performance in activities of daily living (ADL) was assessed using the BARTHEL INDEX. Cohort of subjects 2 groups 40 subjects with delirium and their care givers data collected and analyse with different sociodemographic and clinical profile.

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### Flowchart



### Method of Interpretation/Analysis of Data

- SPSS for windows version 15 is to be used for all statistical analysis. Descriptive statistical analysis was used in this study to know the distribution of data.
- For categorical variables, the differences among the groups were analysed using the Chi Square Test.

## OBSERVATION AND RESULTS

*Table 1-Frequency distribution of sociodemographic variables*

<b>GENDER</b>	<b>Percent</b>	<b>RESIDENCE</b>	<b>Percent</b>
Male	62.5	Urban	42.5
Female	37.5	Rural	57.5
<b>CARE GIVER GENDER</b>	<b>Percent</b>	<b>DURATION OF DELIRIUM</b>	<b>Percent</b>
Male	42.5	LESS THAN 1 WEEK	37.5
Female	57.5	2-4 WEEKS	45.0
<b>CARE GIVER RELATION</b>	<b>Percent</b>	MORE THAN 1 MONTH	17.5
Spouse	27.5	<b>FAMILY HISTORY</b>	<b>Percent</b>
Parents	35.0	YES	25.0
Children	15.0	NO	75.0
Siblings	10.0	<b>TREATMENT</b>	<b>Percent</b>

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Others	12.5	Medical	95.0
<b>MARITAL STATUS</b>	<b>Percent</b>	Surgical	5.0
Single	30.0	<b>SUBSTANCE USE</b>	<b>Percent</b>
Married	42.5	NIL	32.5
Widow	27.5	TOBACCO	22.5
<b>RELIGION</b>	<b>Percent</b>	ALCOHOL	10.0
Hindu	57.5	MULTIPLE	35.0
Muslim	42.5	<b>PRECIPITATING FACTOR</b>	<b>Percent</b>
<b>EDUCATION</b>	<b>Percent</b>	NO	15.0
Illiterate	17.5	YES	85.0
upto5th	27.5	<b>MEDICAL ILLNESS</b>	<b>Percent</b>
upto10th	35.0	DIABETES MELLITUS	17.5
upto12th	20.0	SYSTEMIC HYPERTENSION	17.5
<b>OCCUPATION</b>	<b>Percent</b>	TUBERCULOSIS	5.0
UNEMPLOYED	12.5	OTHERS	10.0
UNSKILLED/SEMISKILLED	30.0	MULTIPLE	50.0
SKILLED	25.0		
PROFESSIONAL	17.5		
HOUSEWIFE	7.5		
RETIRED	7.5		

62.5 percent of the subjects are males.37.5 percent subjects are females.42.5 percent of the caregivers are male, and 57.5 percent of caregivers are females.27.5 percent of the care givers are spouses,35 percent parents,15 percent children,10 percent siblings,12.5 percent others.

30 percent of the subjects are single,42.4 percent are married,27.5% widow.57.5 percent of the subjects are hindu,42.5 percent muslims.17.57 percent of subjects are illiterate,27.5 percent are up to 5 th ,35 percent are up to 10 th,20 percent are up to 12<sup>th</sup> standard.12.5 percent subjects are unemployed,30 percent are unskilled/semiskilled,25 percent are skilled,17.5 percent are professionals,7.5 percent are housewives,7.5 percent are retired.42.5 percent are urban residents,57.5 percent are rural residents.37.5 percent have duration of delirium less than 1 week,45 percent have duration of delirium 2-4 weeks,17.5 percent have duration of delirium more than 1 month.25 percent subjects have family history of delirium,75 percent have no family history of delirium.95 percent developed delirium while on medical treatment,5 percent developed delirium after surgical treatment.32.5 percent have no substance use,22.5 percent have tobacco use,10 percent have alcohol use,35 percent have multiple substance use.85 percent subjects have a precipitating factor and 15 percent have no precipitating factor for the development of delirium.17.5 percent have diabetes mellitus,17.5 percent have systemic hypertension,5 percent have tuberculosis,10 percent have other medical co morbidities,50 percent have multiple co morbidities.

**Table 2-Gender and care giver burden**

		CAREGIVER BURDEN	
GENDER * CARE GIVER BURDEN		F TEST	P
GENDER	male	4.39	0.24
	female		

There is no significant association between gender of the subject and care giver burden.

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**Table 3- care giver relation and caregiver burden**

		CAREGIVERBURDEN	
CARE GIVER RELATION * CARE GIVER BURDEN		F TEST	P
CARE GIVER RELATION	spouse	13.7	0.24
	parents		
	children		
	siblings		
	others		

There is no significant association between caregiver relation and care giver burden

**Table 4-Duration of delirium and care giver burden.**

		CAREGIVERBURDEN	
DURATION OF DELIRIUM * CAREGIVER BURDEN		F TEST	P
DURATION OF DELIRIUM	LESS THAN 1 WEEK	4.4	0.67
	2-4 WEEKS		
	MORE THAN 1 MONTH		

There is no significant association between duration of delirium and care giver burden.

**Table 5-Care giver burden and delirium etiology checklist**

		CAREGIVERBURDEN	
CARE GIVER BURDEN * DELIRIUM ETIOLOGY		F TEST	P
DELIRIUM ETIOLOGY	DRUG WITHDRAWAL	20.1	0.04
	METABOLIC AND ENDOCRINE		
	TBI		
	SEIZURE		
	INFECTION		
	MULTIPLE		

There is significant difference between care giver burden and delirium aetiology checklist. Moderate to severe and severe burden are maximum in subjects with multiple co morbidities and infection.

**Table 6-Barthel index and care giver burden**

		CAREGIVERBURDEN	
BARTHEL INDEX * CARE GIVER BURDEN		F TEST	P
BARTHEL INDEX	MILD	9.3	0.14
	MODERATE		
	SEVERE		

There is no significant association between Barthel index and care giver burden.



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**Table 7-Delirium index and care giver burden**

		CARE GIVER BURDEN	
DELIRIUM INDEX * CARE GIVER BURDEN		F TEST	P
DELIRIUM INDEX	MILD	1.45	0.99
	MODERATE		
	SEVERE		

There is no significant association between delirium index/severity of delirium and care giver burden.

### DISCUSSION

There is some evidence that delirium severity was associated with mortality. Five studies reported a significant association between delirium severity and mortality and six studies reported no significant associations. Results were similar when divided into ICU and non-ICU populations.<sup>17-20</sup> There was also indefinite evidence for the association of delirium severity with patient distress or quality of life. One univariable study reported no significant association between delirium severity and patient distress. One univariable study measured quality of life; it reported a significant negative association between delirium severity and quality of life. One non-ICU setting reported patient distress and one ICU setting reported quality of life, therefore associations were not determined by setting.

In oncology patients, delirium severity was negatively associated with patient delirium recall and was non-significantly associated with delirium-related patient distress  $P = 0.09$ ).<sup>21,22</sup> A study reported 105 ICU patients, there was a significant positive correlation between less severe delirium (measured by Neelson and Champagne, NEECHAM, confusion scale) and higher Short Form-20 (SF-20) scores using univariable analyses in physical function ( $r = 0.35$ ), role function ( $r = 0.31$ ) and health perception ( $r = 0.25$ ) at 3 months, and with physical function ( $r = 0.27$ ), role function ( $r = 0.34$ ), social function ( $r = 0.30$ ) and mental health ( $r = 0.28$ ) at 6 months.<sup>23-27</sup>

Distress associated with delirium, reflected by an increase in DEL-B-C scores, affects caregivers of patients with or without ADRD to the same extent. While caregivers may be familiar with burden when caring for someone with cognitive and functional impairments due to ADRD, this does not mitigate the additional burden associated with delirium. The modest association of burden with cognitive impairment in a study ( $\rho = -.18$ ,  $p = 0.01$ ) suggests that other aspects of delirium (e.g., functional impairments, behavioural disturbances, incontinence, or sleep reversal) may contribute more to caregiver burden. Level of arousal, a strong and specific indicator for delirium, can help differentiate delirium from dementia, although how this feature contributes to burden is unknown.<sup>23,26,27</sup>

Variables which decide caregiver distress in delirium are probably going to be perplexing and influenced by hidden dementia and are a significant variety for studies. The, quick onset, and unfavourable impact on recuperation and restoration of cognition related with delirium may make stressors particular from the more recognizable ADRD trouble model of more slow more unsurprising intellectual decrease and loss of capacity. Set up approaches of guardian adapting might be lacking or less characterized in a new circumstance leaving the incoherence caregiver feeling loss of control, stun, and pain. To begin with, this is a solitary site study and generalizability should be evaluated in future investigations. Besides, while

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we had the option to show in this short report quantifiable contrasts in results, further work is expected to outline these progressions inside a clinical point of view. Furthermore, inspecting the relationship of possible supporting factors in delirium (e.g., behavioural, cognitive, or clinical changes) is significant, anyway this is past the extent of the current study. These are significant extra regions to consider in future examinations. ADRD depended on a formerly distributed, intensive and thorough investigation measure utilizing psychological testing and clinical record audit that had been created following clinical guidelines. Since heterogeneous aetiologies for intellectual decline (e.g., non-determined dementia, Alzheimer's illness, frontotemporal dementia, vascular dementia, or MCI), all aetiologies of intellectual debilitation were classified as ADRD and may have under-or over-assessed the genuine rate delirium in our example. This is a significant constraint of our study, which will be basic to address in future exploration. Different reactions in caregiver of people with dementia and delirium like nationality, sex, time allotment providing care, dementia severity, nature of the relationship, and social issues were not considered here yet are need zones for future work.<sup>27</sup>Risks factors for care givers weight can be divided into various factors: patient qualities including age, time since finding, severity of condition, sort of presentations and clinical impairment; caregiver attributes including age, sex and socio economic status; the setting of care including care giver relationship to patient, mode of care, level of administrations gave and co-residence.<sup>28</sup>

Past studies have concurred on significant determinants of caregiver trouble for delirium patients, especially loss of capacity, neuropsychiatric side effects of anxiety and depression just as female caregiver sex and living respectively at home. A few studies propose they adjust, and trouble stays stable or diminishes while others show an increment in trouble because of the aggregation of worry about the years. Patient wellbeing results had uncertain proof of relationship with delirium severity. The clinical variables assessed may have adjusted relationship between delirium severity and results because of fluctuating delirium aetiologies and clinical variables like disease severity.<sup>29,30</sup> To decrease this clinical heterogeneity, there are isolated studies that revealed ICU and non-ICU patients.

Evaluation of delirium may permit medical care facilities to foresee projected medical care costs inferable more readily from components, for example, ICU admission and discharge area. Even though further studies in ICU and non-ICU settings are required, medical care professionals and caregivers may wish to archive seriousness in treatment pattern. This features the requirement for future studies in both ICU and non-ICU settings.<sup>29</sup> Future studies should utilize approved devices and studies to report connections between severe delirium and results, controlling for possible risk factors, like age, disease seriousness and fatigue. A bigger group of studies is expected to comprehend relationship between severity of delirium and results, which will yield important ends paying little heed to presence of delirium.

On this occasion that relationship with patient and caregiver results are available, further exploration will advise how delirium estimation can be utilized in aide to dichotomous studies to anticipate patient results and educate asset use. For instance, estimation of delirium severity may distinguish patients with a higher risk of creating poor results, like intellectual and memory disturbances. Distinguishing these patients may give better prognostic data and educate choice regarding interventions to alleviate long term consequences related with delirium.

### CONCLUSION

In due course, delirium generously builds care giver burden, independent of actual status. Thus, weight ought to be surveyed altogether caregivers of and patients with delirium. In this study results showed that there is significant association between delirium is an acute illness with sudden onset with maximum percentage of duration 2-4 weeks, delirium is more in males than females, majority of the care givers are spouses and parents, multiple aetiologies, diminished psychological QoL are associated with increased care giver burden. Family history of delirium is associated with better care giver burden. Employed subjects with delirium have better overall QoL. As duration of delirium increases, delirium severity increases. Despite the significance of this issue the current assemblage of writing is restricted and variable in setting, strategy, and quality, featuring a requirement for new great studies. The current proof shows that delirium severity might be a valuable to the existing delirium screening to decide the weight to patients and caregivers, medical services framework assets and carers. Guardian and spouse uphold programs, case the professionals, guiding, instruction and long multicomponent projects ought to be investigated as possible ways to deal with decline care giver burden. Studies are additionally expected to think about the weight of delirium more readily in different populations. At last, we trust this work will help for future studies focusing on counteraction and the board delirium burden in guardians and patients, as a significant need for delirium care.

### REFERENCES

1. Breitbart W, Gibson C, Tremblay A. The Delirium Experience: Delirium Recall and Delirium-Related Distress in Hospitalized Patients With Cancer, Their Spouses/Care givers, and Their Nurses. *Psychosomatics*. 2002;43(3):183-194.
2. Bull M, Boaz L, Jermé M. Educating Family Caregivers for Older Adults About Delirium: A Systematic Review. *Worldviews on Evidence-Based Nursing*. 2016;13(3):232-240.
3. Martins S, Simões M, Fernandes L. 2847 – The role of family/caregivers in management of delirium. *European Psychiatry*. 2013;28:1.
4. Finucane A, Lugton J, Kennedy C, Spiller J. The experiences of caregivers of patients with delirium, and their role in its management in palliative care settings: an integrative literature review. *Psycho-Oncology*. 2016;26(3):291-300.
5. The Delirium Experience: Delirium Recall and Delirium-Related Distress in Hospitalized Patients With Cancer, Their Spouses/Caregivers, and Their Nurses
6. O'keeffe S. Rating the severity of delirium: The delirium assessment scale. *International Journal of Geriatric Psychiatry*. 1994;9(7):551-556.
7. von Essen L. 1165 Quality of life: patients and care-givers view. *European Journal of Cancer Supplements*. 2003;1(5):S356.
8. Chiao C, Wu H, Hsiao C. Caregiver burden for informal caregivers of patients with dementia: A systematic review. *International Nursing Review*. 2015;62(3):340-350.
9. Delirium in hospitalized patients: Implications of current evidence on clinical practice and future avenues for research-A systematic evidence review
10. Davis D. DESCRIPTION AND IMPACT OF DELIRIUM ON DEMENTIA. *Alzheimer's & Dementia*. 2019;15(7):P1605.
11. Symptom Profile and Etiology of Delirium in a Referral Population in Northern India: Factor Analysis of the DRS-R98
12. DaPonte G, Lobo M, Fernandes S, VilaNova V, Paiva A. P-1020 - Delirium in old age. *European Psychiatry*. 2012;27:1.
13. Davis D. DESCRIPTION AND IMPACT OF DELIRIUM ON DEMENTIA. *Alzheimer's & Dementia*. 2019;15(7):P1605.
14. Yusuf A, Adamu A, Nuhu F. Caregiver burden among poor caregivers of patients with cancer in an urban African setting. *Psycho-Oncology*. 2010;20(8):902-905.

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15. Teri L. 187 Behaviour and caregiver burden: Behavioural problems in patients with Alzheimer's disease and its association to caregiver burden. *Neurobiology of Aging*. 1996;17(4):S47.
16. Cole M, Ciampi A, Belzile E, Dubuc-Sarrasin M. Subsyndromal delirium in older people: a systematic review of frequency, risk factors, course and outcomes. *International Journal of Geriatric Psychiatry*. 2012;28(8):771-780.
17. Cunningham C. Systemic inflammation and delirium: important co-factors in the progression of dementia. *Biochemical Society Transactions*. 2011;39(4):945-953.
18. Schuurmans M, Duursma S, Shorridge-Baggett L. Early recognition of delirium: review of the literature. *Journal of Clinical Nursing*. 2008;10(6):721-729.
19. Martínez Lomakin F, Tobar Bustos C, Fuentes Rojas P. Delirium in the hospital, a narrative review. *Medwave*. 2013;13(03):e5643-e5643.
20. Weber J, Coverdale J, Kunik M. Delirium: current trends in prevention and treatment. *Internal Medicine Journal*. 2004;34(3):115-121.
21. Risk Factors: Pathogenesis, Diagnosis and Management of Delirium. *International Journal of Science and Research (IJSR)*. 2016;5(4):1655-1659.
22. Nam S, Stratton L. ADDRESSING FAMILY CAREGIVER BURDEN IN DIVERSE CARE SETTINGS AND POLICY IMPLICATIONS TO ATTENUATE CAREGIVER BURDEN. *Innovation in Aging*. 2018;2(suppl\_1):794-795.
23. Cantekin I, Kavurmacı M, Tan M. An analysis of caregiver burden of patients with hemodialysis and peritoneal dialysis. *Hemodialysis International*. 2015;20(1):94-97.
24. Rekvad L. Early detection of delirium – using the CAM score. *Dansk Tidsskrift for Akutmedicin*. 2019;2(3):50.
25. McCusker J, Cole M, Dendukuri N, Belzile E. The Delirium Index, a Measure of the Severity of Delirium: New Findings on Reliability, Validity, and Responsiveness. *Journal of the American Geriatrics Society*. 2004;52(10):1744-1749.
26. Garlo K, O'Leary J, Van Ness P, Fried T. Burden in Caregivers of Older Adults with Advanced Illness. *Journal of the American Geriatrics Society*. 2010;58(12):2315-2322.
27. Rosas-Carrasco Ó, Guerra-Silla M, Torres-Arreola L, García-Peña C, Escamilla-Jiménez C, González-González C. Caregiver burden of Mexican dementia patients: The role of dysexecutive syndrome, sleep disorders, schooling and caregiver depression. *Geriatrics & Gerontology International*. 2013;14(1):146-152.
28. Bull M. Delirium in older adults attending adult day care and family caregiver distress. *International Journal of Older People Nursing*. 2010;6(2):85-92.
29. Schofield I, Dewing J. The care of older people with a delirium in acute care settings. *Nursing Older People*. 2001;13(1):21-26.
30. Boettger S, Jenewein J, Breitbart W. Delirium and severe illness: Etiologies, severity of delirium and phenomenological differences. *Palliative and Supportive Care*. 2014;13(4):1087-1092.

### **Acknowledgement**

The author appreciates all those who participated in the study and helped to facilitate the research process.

### **Conflict of Interest**

The author declared no conflict of interest.

**How to cite this article:** Nimitha, K. J. & Thomas, J. (2022). Study of Caregiver Burden in Delirium. *International Journal of Indian Psychology*, 10(4), 1704-1715. DIP:18.01.162.20221004, DOI:10.25215/1004.162