



Original Article

Bioethics of Medical Professionals' Perceptions on Delirium during COVID-19 Pandemic

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Abstract: COVID-19 patients with hospital delirium exhibit high level of metabolic problems (low level of sodium concentration) and severe anxieties of psychotic problems were observed during the COVID-19 pandemic period. In this qualitative study, researcher explored, the perceptions of medical professionals such as, doctors, nurses, laboratory technicians, microbiologists, and other healthcare workers regarding delirium during COVID-19. Interviews and field notes were collected from the Karur Government Medical College Hospital, Karur, Tamil Nadu, India. Most of the professionals observed that the ICU psychosis affected patients with dementia problems in the COVID-19 pandemic. The patients were affected by delirium with COVID-19 infection is higher prevalence than delirium without COVID-19 infection. Further, the patients exhibited a number of other diseases such as diabetes, hypertension and other ailments had correlation with delirium diseases. Denying some services to the delirium patients would be an infringement of their basic human rights. This research report witnessed by the ethical value of medical professionals in the Karur Government Medical College Hospital during the COVID-19 pandemic period.

Keywords: Bioethics, anxieties, phobia, dementia, delirium, COVID-19

Introduction: The purpose of this study is to identify the perceptions of medical professionals such as doctors, nurses, laboratory technicians, microbiologists, and other workers about delirium with COVID-19 infection in the Karur Government Medical College Hospital of

Karur District, Tamilnadu, India during the COVID-19 pandemic period. COVID-19 is predominantly a respiratory disease and also affected the CNS of the body¹. COVID-19 may present with atypical symptoms including delirium. Delirium is a serious disturbance in the mental

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abilities, that results in confused thinking and reduced awareness of the environment^{2,3}. Elderly and people with pre-existing dementia are at higher risk of developing delirium^{4,5}. Also patients who are delirium, infected with COVID-19 suffer high level of cognitive disabilities, such as anxieties, fear (phobia) and some other neurological problems^{6,7}.

According to Mayo Clinic American Academic Medical Centre report, delirium can often be traced to one or more contributing factors, such as severe or chronic illness, changes in metabolic balance (low level of sodium), medication, infection, surgery or alcohol or drug intoxication or withdrawal⁸.

In elderly patients, delirium sometimes, cause cognitive impaired and dementia occur. Experts say that, they may have long lasting detrimental effects, increasing the risk for depression⁹. Denying some services to the delirium patients would be an infringement of their basic human rights. Low-potency neuroleptics and alpha-2 adrenergic agent may be useful in this setting. Professionals recommended that some specific guidelines for delirium with COVID-19 infection¹⁰. Medical professionals are faced with a series of concerns, which likely include an emotional reaction regarding delirium affected patients. Particularly in doctors they are interested to serve for delirium with COVID-19 infection rather than other professionals. Some professionals were clearly stated that delirium patient's exhibit marked perceptual disturbance, such as illusions, misinterpretations and hallucinations¹¹. Sleep-wake cycle, insomnia and nightmarish were also observed¹².

Moreover, nurses at the Karur Governmental Medical College Hospital, served essential works for delirium patients. No research has been found in India, what is the perception of medical professionals regarding delirium with COVID-19 infection.

Methods: The study took place in the Karur Government Medical College Hospital of Karur District, Tamilnadu, India. Approximately, ten medical professionals were interviewed and gathered the relevant data about delirium patients with COVID-19 infection during the month of April - June, 2020. Formal, informal interviews and field notes like medical reports were collected. Attendance of the patients were also interviewed. Age-wise data of 60% patients from the age of between 50-60, 30% patients age from below 50 and 10% from the age of above 60 years were collected respectively. The collected data were kept confidentially for the purpose of research study. Ethical clearance certificates were obtained from the Institutional Ethics Committee, Directorate of Medical Education, Chennai, Tamilnadu. Consent was taken from ten participants before starting the research.

Participants: Participants of this research were medical professionals and delirium (mental health) experts served in the Karur Government Medical College Hospital. In this hospital, one of the duty doctors treated and a unique way of handled the delirium patients. Well qualified nurses and few workers in the ICU section treated the delirium patients. Samples were also taken and tested by laboratory technicians and microbiologists. Few of other co-

workers on partially fulfill the treatment of delirium patients. The experienced senior nurses were also responsible for handle the pulmonary problems in the delirium patients.

Procedure: The following questions were asked (Table 1). Each staff member was interviewed 1 to 2 times in the morning session (10 AM to 12 AM).

Data Analysis: Data were analyzed by SPSS advanced statistical calculation through the Microsoft computer^{13,14,15}.

Results: Perception of Medical Professionals: Interviews with medical staff members, revealed that, COVID-19 infected patients, have highly trouble with delirium. 60% duty doctors (shift-1/shift-2) appropriately accepted the above concept rather than other staff like 20% nurses, 10% laboratory technicians and 10% other paramedical staff (Table-1) & (Figure-1).

Table 1. Guiding Questions Used for Formal Interviews for the Medical Professionals

S.No.	Details of Guiding Questions
1.	Do you feel that delirium patients are appropriately treated in the Karur Government Medical College Hospital?
2.	Do you participate in any safety precautions, when working with delirium and COVID-19 infection?
3.	Have you had any past experience working with delirium patients?
4.	Do you have any specific metabolic problems observed in the delirium patients?
5.	Do you have any specific nightmarish related problems observed in the delirium patients?
6.	Do you have any specific phobia or panic of anxieties observed in the delirium patients?

Doctors stated that, delirium have strong cognitive problems with dementia. Further, they expressed that, delirium patients

highly affected by metabolic errors in the ICU. Very specifically, more or less of all delirium patients had low level of sodium concentration in the blood stream. Low level of sodium had certain failures of the physiological system like renal failure.

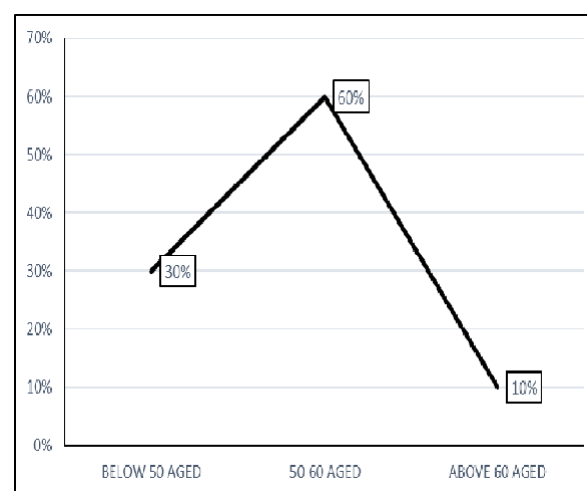


Figure 1. Percentage of data of the different aged patients from the medical professionals

Further, 10-15% it led to coma stage and died by these problems. One of the patients, age around sixty, had high level of anxieties with phobia were observed in the ICU unit. 60% medical reports were observed with the help of doctors for those patients. Fourth week onwards, low level of sodium concentration recorded, such patient died by metabolic imbalance, senior medical professional stated. Medical staff accepted COVID-19 infected patients with high level of delirium problems and along with other diseases like diabetes, hypertension and other non-communicable diseases. 05-10% duty nurses and other co-workers were expressed, delirium patients, sometime aggressive behaviours of biting teeth in the sleep, and posed a psychotic threat also observed. 30-40% duty nurses also believed that, delirium patients, normally inappropriate to talk and interaction with others. Few staff members,

rightly pointed out, they expressed calm manner in all the situation in the ICU.

Infection Transmission: 10-20% doctors stated that, COVID-19 infection with delirium was more prevalent during the pandemic period. In the delirium sub-type, hyperactive delirium varieties often developed in the ICU corona patients. It is characteristic feature of agitation, restlessness, emotional instability and clear evidence of hallucinations. 50-60% doctors were pointed out, when infecting with COVID-19, after 14 days incubation period, delirium has developed. Further doctors stated that, one in five patients with COVID-19 infection, delirium had critically troublesome. 10-20% staff members, like laboratory technicians, microbiologists and other co-workers showed congruence in their point of views, delirium as phobic related diseases rather than neurosis.

Emotional Problems: 60% nurses verbally expressed her understanding of delirium with COVID-19 infection, they have more cognitive problems with anxieties. During the middle part of treatment, with high level of medication, patients expressed slowed motor activities. Sleeping problems were observed by other staff. 10% doctor's viewed that COVID patients with delirium had rapid fluctuation in emotions like sudden unprovoked irritability, crying spells and laughing.

Discussion and Conclusion: This study is the qualitative bioethical research that addresses the relations among medical professionals' perception on delirium with COVID-19 infection. Duty doctors seemed to be a clear link between delirium and

COVID-19 infection. It may be frequently associated with delirium leading to sustained sedation and mechanical ventilation, thus marked worsening the prognosis. The apparent presence of an emotional problem with delirium was noted in research literatures. A recent research study demonstrated that 26 of 40 patients with COVID-19 infection had suggestive clinical features for delirium. This research study involved, only medical professionals like doctors, nurses, laboratory technicians, microbiologists, pharmacists and other co-workers. However, delirium patients, cognitively challenged with COVID-19 infection¹⁶. In the Karur Governmental Medical College Hospital, Karur setting, delirium with COVID-19 infection patients, handled very properly by the duty doctors and other staff members. Some professionals' specific knowledge and experience is very useful for treating the delirium diseases. Professionals in their safety and protective measures enriched in the Karur Governmental Medical College Hospital, Karur. It is well documented that COVID-19 infected persons have mental problem of delirium. Delirium also associated with some other diseases like dementia¹⁷.

All ICU psychoses patients have not fatal implications. The first report of 'nightmarish delirium' with COVID-19 infection has reported by Mayo Clinic American Academic Medical Centre for low level of sodium concentration. Further, they pointed out, two-thirds to three-quarters of patients of COVID-19 infection have ICU psychoses. Johns Hopkins University Professor of Public Health, Dr. Marty Makary said, that deliriums are common in Intensive Care Units. Delirium

is one of the important symptoms of COVID-19 infection and ‘complicating diagnosis’ in the elderly patients¹⁸. Others have stated that, while coming with COVID-19 positive test to the Karur Governmental Medical College Hospital, have no symptom of delirium. Researcher noted from the field notes and document study, health care professionals expressed high quality ethical and specific knowledge during this study.

In general, the adults have some level of four ‘Ds’ problem in the ICU-section of medical hospital. They pointed out, delirium or the development of acute confusion is common problem for patients over the age of 65 years. Some cognitive declines like, learning and remembering, handling complex tasks, reasoning ability, spatial ability, language and behaviour normally present. In this study, the researcher stated that phobia (fear) has prominent link with delirium development. According to the World Health Organization, altered consciousness and confusion may be a presenting symptom of COVID-19 infection, even before the fever and other ailments. In some professionals, their action reflected a level of ‘uncertainty’ about the safety and protective measures related to the delirium with COVID-19 infection. Melatonin and antipsychotic agents have been used by the doctors in all the times for treating the delirium with COVID-19 infection. In severe breathing difficult stage, doctors recommended the dopamine agonist drugs. In this research article, the researcher has described the perception of medical professionals on delirium with COVID-19 infection in the Karur Governmental Medical College Hospital, Karur through

bioethical view. Low level of sodium concentration is the main cause for delirium development in the COVID-19 infection stage. Phobia and anxieties always associated with this disease. Doctors, nurses, and other ICU workers’ role highly satisfactory in the Karur Governmental Medical College Hospital, Karur.

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