

# Review of: "Association of Dementia and Patient Outcomes among COVID-19 Patients: A Multi-center Retrospective Case-Control Study"

Khizra Sultana<sup>1</sup>

<sup>1</sup> College of Nursing and Allied Health Sciences

**Potential competing interests:** The author(s) declared that no potential competing interests exist.

The study is well written in general. Some points to consider

1.The authors have mentioned "The Elixhauser Comorbidity Index (ECI)" in the results. Please give a short explanation of this for the reader to understand in the materials and methods section where you describe what variables you will be selecting.

Also this variable is not mentioned in the Abstract in methods but appears in results. Please kindly correct this or clarify.

2.The authors mention that they "had a large sample size which provided higher statistical power" this is compared to what studies? You could mention the sample size in couple of other studies.

3. Since there are the primary outcome variables 1. in-hospital mortality2. length of stay, 3. Intensive Care Unit (ICU) admission, 4.ICU-free days, 5.mechanical ventilation (MV) use, 6.MV-free days and 7. 90-day re-admission **The results in the abstract should reflect these variable including others if the authors like.**

4.In discussion authors have mentioned "Several studies lend support to the hypothesis that mortality is higher in those with dementia as mentioned above; however, not enough data are available to conclude lower morbidity and degree of critical illness in the patient population in question." **can you please provide a reference.**

3.I have observed that the authors have only referenced meta analysis in their paper. What about original article or reviews. There might be one or two studies that might have results similar to your study. Is your study the first to report these results contrary to other studies.

Authors mention in the discussion "The meta-analysis also did not control for age and co-morbidities".**Are there any studies that could have controlled for these parameters that could be compared to your study?**