

Review of: "[Review Article] Drug Use Disorder and Coping Mechanisms Due to COVID-19 Pandemic Measures: A Cross-Sectional Survey"

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Potential competing interests: No potential competing interests to declare.

Hi,

This study investigated the potential behavioral changes in drug use disorder patients admitted to a hospital in Muscat, Oman, due to COVID-19. They used a cross-sectional method to achieve the aim of the study and a logistic regression model to analyze the data. I appreciate all efforts of the authors in this study and understand all limitations in that area to conduct a study. However, due to several methodological concerns, I think this study cannot be published in its present status. My comments are as follows:

Title:

Comment 1:

The title is not clear:

- What does "COVID-19 pandemic measurement" mean?
- The cross-sectional study design method, but the survey is a data collection method. Why have they been mixed?
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Affiliation:

Comment 2:

The affiliation of authors has been repeated. Please keep the right one.

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Abstract:

Comment 3:

The abstract is confusing because of the study design. Furthermore, there is no consistency among the reported results in the abstract, results, and discussion sections. Please check how the ORs are reported in these different sections.

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Introduction:

Comment 4:

It is also well known that people with SUD are more vulnerable to infection by the virus [5]

It seems this reference is not related to the statement.

Comment 5:

According to the literature, drug intake increased during the COVID-19-related lockdown compared to the period before[6]

The referred article has included just the anti-COVID and anti-diabetic drugs. What is the relation between your study and this article?

Data Sources and Sampling:

Comment 6:

What is the period of study?

Comment 7:

the observational analytical arm of an epidemiological study design

-

This part is not clear. Do you mean your study is a part of another bigger study? Make it clear, please.

Study Survey

Comment 8:

There is no questionnaire attached. Therefore, the questions and other factors related to the questionnaire cannot be evaluated.

Comment 9:

A sample of 61

-

Did you do a sampling? If yes, please explain how you did this sampling and which method you used for it. Did you do a sampling? If yes, please explain how you did this sampling and which method you used for it.

Comment 10:

by the COVID-19 pandemic

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How did you measure the pandemic? Is it the pandemic and COVID-19? You have divided your patients into two groups, "Yes, COVID-19 effect," and "No-COVID-19 effect," in Table 1. How did you measure COVID-19? If it is the pandemic, then you should show the date for that, and if it is the disease, you should explain how you diagnosed the patients, in what period, and what type of patients were included in the study.

Comment 11:

Hospitalisation tendency, and change of behaviour.

-

How did you measure the tendency or the change of behavior? You should explain it in the method section.

Sample size calculation

Comment 12:

Why did you calculate a sample size? Since the population of the study is the people who were admitted to the hospital and the maximum capacity of the hospital in the section under study is 221 beds, the maximum population of the hospital could be 221 people (except if you have readmissions in some beds). Then, why did you not include all patients in the study? It could increase the population as well as the power of your study. Maybe if the period of study were clear, understanding the reason would be much easier.

Comment 13:

The sample size of 73 was

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Why did you calculate a sample size? Since the population of the study is the people who were admitted to the hospital and the maximum capacity of the hospital in the section under study is 221 beds, the maximum population of the hospital could be 221 people (except if you have readmissions in some beds). Then, why did you not include all patients in the study? It could increase the population as well as the power of your study. Maybe if the period of study were clear, understanding the reason would be much easier.

Comment 14:

61 of the 73 study

How many people were the main population of your study that you sampled 73 of them?

Comment 15:

a random sample

What do you mean by a random sample? You have not explained it in the method section or in the statistical analysis method section.

Statistical Analysis**Comment 16:**

The study outcome was a binary variable, with two categories, that is indicating COVID-19 effect (1) and No COVID-19 effect (0).

What study outcome are you talking about? COVID-19? But by my understanding, COVID-19 wasn't an outcome of the study. Was it?

Results**Description of study participants****Comment 17:**

A response rate of 90%.

The response rate has been reported as 90% here, while it is reported as 84% in the sample size calculation section. What is the difference between them?

Comment 18:

Married or divorced

You have divided the marital status as single and married or divorced here, but you divided them as single vs. others in the tables. Which one is correct? What about widows? In which subgroup are they included?

Naturally, single people are younger than married people/divorced/widows. It could induce a bias in your calculated association. How did you deal with this problem?

Figure 2:**Comment 19:**

What do you mean by oneplus? Do you mean ≥ 1 ?

Comment 20:

Other factors related to the social influence.

-

It is a very general and vague text. It would be better if you had a more explained text here.

Comment 21:

Figure 4:

You had another definition in your text. Please use the same definition in the text and graphs/tables.

Comment 22:

The behavioural changes among participants with drug use disorder, especially during the COVID-19 pandemic, are presented [Figure (5)]. Of the total, 41% (n=25) of the individuals with drug use disorder were infected with COVID-19. approximately 50%, n=30, attempted to kill themselves, while 67%, n=41, were hospitalized. Most of the participants with drug use disorder (98%, n=60) tried to take other drugs available and reported that these drugs were generally available during the pandemic (98%, n=60). However, other effective behavioural changes included taking overdose (44%, n=27), sleeping out of home (60%, n=37), escaping from home during drug search (80%, n=49), and some even preferred to report to the concerned healthcare authorities so that they could be helped stop drug abuse (20%, n=12).

Since you aimed to show the effect of COVID-19 on the outcomes, it would be more reasonable if you reported the outcomes in the COVID-19 group compared to the non-COVID-19 participants instead of reporting the outcomes as general results.

Comment 23:

(n=14, 45% versus (n=17, 55%)

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To what situation are these numbers related? Which one is for the COVID-19 group, and which is for non-COVID-19 groups?

Comment 24:

Using the logistic regression model

You used the logistic regression model for your analysis, but you haven't reported any OR in your results sections or tables, just in the abstract section or discussion. Therefore, there is no consistency among the sections. What is the reason for that?

Comment 25:

($\beta = -3.50$, $p = 0.003$).

What are these results? Where are they coming from? Are they correlation coefficients? If yes, you should explain it clearly in the statistical methods section.

Discussion:

Comment 26:

Honestly, I could not find any discussion. It is just one paragraph related to discussion which just repeats the results of the study without referring to some other studies. I think the discussion section should be rewritten.

Comment 27:

Substance use disorder (SUD) develops over long-term administration of various 'addictive' drugs, which can lead to physical, psychological, and social effects.[18][19] The negative effects of SUD can become even more difficult during a pandemic due to restrictions on mobility. This can make it harder for SUD individuals to manage their condition and obtain the necessary support and treatment. It underscores the importance of addressing the unique needs of this population during public health crises such as the COVID-19 pandemic.

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This paragraph is more introduction material. You do not need to have it here.

Comment 28:

This study aimed at exploring factors associated with coping strategies among Omanis with SUD during the COVID-19 pandemic and to identify the shift in the potential factors associated with drug usage. We tested the following potential factors against the COVID-19 effect, which are: the main type of drug use, suicidal thoughts, marital status, hospitalization, escaping home during lockdowns to find drugs, taking an overdose, and sleeping out to find drugs. The choice of these factors was made based on several investigations carried out by other studies. [20][21][22]

This is related to the materials section.

Conclusion:

Comment 29:

The specific objective of our study was to identify behavioural changes and factors associated with the effect of the COVID-19 pandemic among people with drug use disorder in Oman. Several potential factors related to the effect of COVID-19 were tested, including the main type of drug abuse, suicidal thoughts, marital status, hospitalisation, escape from home during lockdowns to find drugs, taking an overdose, and sleeping out to find drugs.

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This sentence is more introductory.

Comment 30:

Our study identifies that individuals with SUD who took morphine as their main drug were less likely to report that COVID-19 affected their pattern of drug abuse. However, behavioural factors such as hospitalization and taking an overdose were very likely to impact significantly on persons with SUD due to the COVID-19 pandemic.

This part is suitable for the results section.

Comment 31:

One would recommend promoting community-based services and making them more accessible to patients with drug use disorder during the COVID-19 pandemic.

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It seems this conclusion is not in connection with the aim of your study. Therefore, it is better to change it. The conclusions should be directly related to the aims of the study.