

Received: 2023-12-03 **Reviewed:** 2023-12-24 **Revised:** 2023-12-27 **Accepted:** 2023-12-28 **Published:** 2023-12-30**E d i t o r****R e v i e w e r s**

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1. Round 1*1.1 Reviewer 1*

Date: 22 November 2023

General Comments:

- 1. Urgent Need for Update:** The manuscript appears to have been written in 2021 and requires significant updates to ensure the data and references reflect the current understanding of COVID-19 vaccines as of 2024. This includes updating statistics, recent studies, and public health policies related to COVID-19 vaccines.
- 2. Length and Structure:** The paper could benefit from a reduction in length by approximately 50% especially in the introduction. Substantial improvements are needed to enhance its quality.
- 3. Ambiguity in Language:** Terms like “currently” and “nowadays” are too vague. Precise dates should be provided for clarity. Additionally, the word “Internet” should always be capitalized.
- 4. Consistency in Terminology:** Use either “participant” or “subject” consistently throughout the paper. Avoid elegant variations which might confuse the reader.
- 5. Abbreviations:** Include an alphabetical list of abbreviations. Ensure all abbreviations are explained upon first use, except standard units of measurement, and used consistently thereafter.
- 6. Appendix vs. Annex:** Clarify the use of “appendix” and “annex” in the paper.
- 7. Table Confusion:** Address the confusion regarding two Table 1s – one in the appendix and one in the main text.

Title Section:

- 1. Short Title:** Add a concise, informative short title for the paper.
- 2. Geographical Specification:** Include “North Africa” in the title to specify the study's regional focus.

Abstract:

- 1. Introduction Addition:** Incorporate an introduction segment in the abstract, including the rationale of the study.

2. Define COVID-19: Clearly define COVID-19 at its first mention in the abstract.
3. Specific Time Period: Specify the exact time period referred to in the conclusion.

Keywords:

1. Avoid Repetition: Do not repeat terms from the title or abstract in the keywords.
2. Use MeSH Terms: Opt for Medical Subject Headings (MeSH) terms for better indexing.
3. Alphabetical Order: Arrange the keywords alphabetically.

Introduction:

1. Update Required: The introduction is outdated and must be revised to reflect the latest developments in COVID-19 research and public health policies.
2. Reduction in Length: Suggest reducing the introduction by 50% and eliminating redundant sections.

Methods:

1. Additional Information Required: Include study design, study period (month, year), and COVID-19 related data (number of cases, deaths) during the study period.
4. Sample Size Calculation: Provide details on the sample size calculation for the survey.
you may refer to this reference for your sampling size calculation:
<https://pubmed.ncbi.nlm.nih.gov/37536678/>
5. Correct References: Ensure all references are accurate and relevant.

Results:

1. Reduce Redundancy: Eliminate repetitive information between text and illustrations.
2. Table Corrections: Address the duplication of Table 1 and ensure clarity in presentation.

Discussion:

1. Main Results Recap: Start with a summary of the main findings.
2. Reference Corrections: Ensure all cited references are accurate and relevant.

Study Limitations:

1. Additional Limitations: Include common survey limitations and the potential outdated nature of the study.
2. Future Pandemic Relevance: Highlight the applicability of the study's findings to future pandemics in both the introduction and recommendations.

Overall, this manuscript presents a valuable study but requires significant revisions, updates, and clarification to accurately reflect the current landscape of COVID-19 vaccine attitudes and behaviors influenced by social media. The changes suggested here aim to enhance the manuscript's relevance, clarity, and scientific rigor.

1.2 Reviewer 2

Date: 24 November 2023

I read with a great attention the paper titled "Shaping Public Health Decisions: A Latent Class Analysis of Social Media's Influence on Attitudes and Behaviors Towards COVID-19 Vaccines".

The rationale of the study is interesting. In fact, analyzing the influence of social media (SM) on attitudes and behaviors towards COVID-19 vaccines is crucial for the following nine reasons. First, SM platforms are major channels for the

dissemination of information. Understanding how information about COVID-19 vaccines is shared, consumed, and interpreted on these platforms is essential for identifying potential misinformation or gaps in knowledge. Second, SM can shape public perception and trust in vaccines. Positive or negative sentiments expressed on these platforms can influence individuals' attitudes towards COVID-19 vaccines, affecting their likelihood of getting vaccinated. Third, SM can be a breeding ground for misinformation. Analyzing its impact on vaccine-related narratives helps identify and counteract false or misleading information, preventing the spread of myths that may discourage vaccination. Fourth, understanding the factors contributing to vaccine hesitancy is crucial for public health efforts. SM can amplify both positive and negative sentiments, contributing to hesitancy or confidence. Analyzing these dynamics aids in developing targeted strategies to address concerns and promote vaccine acceptance. Fifth, SM provides insights into the effectiveness of communication strategies. Analyzing successful campaigns or identifying patterns in the spread of information can inform public health officials and organizations on how to craft messages that resonate with diverse audiences. Sixth, SM analysis allows for the identification of specific demographic groups or communities with higher vaccine hesitancy. This information is valuable for designing targeted interventions, tailoring messaging to address the concerns of specific populations and increase vaccine uptake. Seventh, SM provides a real-time platform for monitoring public sentiment. This can be valuable for quickly identifying emerging issues or sentiments that may impact vaccine uptake, enabling timely responses from public health authorities. Eighth, SM transcends geographical boundaries, providing a global perspective on vaccine-related attitudes and behaviors. This broader view is important for understanding regional variations, cultural influences, and addressing challenges on a global scale. Finally, insights from SM analysis can inform public health policies and decision-making. Understanding the public discourse allows policymakers to adapt strategies, allocate resources effectively, and address concerns in a timely manner. In brief, the analysis of SM's influence on attitudes and behaviors towards COVID-19 vaccines is essential for crafting effective public health strategies, countering misinformation, and promoting widespread vaccine acceptance. This understanding contributes to global efforts in controlling the spread of the virus and achieving widespread immunity.

HOWEVER, in its actual form, the paper presents several weakness and need to be corrected and mainly updated.

GENERAL REMARKS

.The paper is not updated. I think that the paper was written during the year 2021 questions raised about COVID19 vaccine.

.The paper can be shortened by 50% or changed to an editorial (with some main results). If the authors insist to keep the study as an original paper, a hard work is needed to improve the paper quality.

.I have introduced several changes inside the paper. Please consult them.

.The authors use often ambiguous terms such as "currently" and "nowadays". More precision is needed and exact dates must be reported.

.Write always Internet not internet

.Avoid elegant variations of terms: use participant or subject not both.

.Several abbreviations were used. Add an abbreviations list (in alphabetical order), and avoid misuse of abbreviations (All abbreviations should be explained the first time they are used - unless it is a standard unit of measurement - and thereafter the use of abbreviations should be consistent throughout the paper).

.Sometimes appendix and sometimes annex?

.There are 2 table 1? Table 1S (appendix) and Table 1 (text)?

TITLE

Add a short title

Add North Africa in the title (before Public)

ABSTRACT

.Add an introduction, including the rational of the study

.Define COVID-19 at first use

.Last line of the conclusion: which period exact in this sentence (in this period)

KEYWORDS

.Please avoid citing as keywords some terms used in the title or the abstract

.Please opt for MeSH terms

.Please classify the key words in alphabetical order

INTRODUCTION

. This section is not updated at all.

This section must be shortened by 50%

.I suggest to shorten this section and delete the sentences from “Currently, the ...” till “From another perspective, “. The introduction will begin with this sentence “The COVID-19 pandemic has been....See the corrected version

METHODS

.Several lacking information must be added, mainly the study design, the study period (month, year), and data related to COVID-19 (number of cases, number of death) during the study period? This is capital.

.Define UNESCO

.Add a reference for the 1964 Helsinki Declaration

.Numerical data related to gender, age, and educational level must move to the results section.

.What about the sample size calculation for this survey?

.The reference 24 in this sentence “The adapted Arabic version of the COVID-19 Fear Scale of Alyami et al. [24]” is wrong. Reference 24 is for Brennen?

.Please add a reference for this sentence “The BIC is recommended for its dependence on both the log-likelihood and the adjusted sample size.”

.Please introduce the use of mean and SD and the Chi-2 test in the statistical analysis subsection. Moreover, define AOR in this section, introduce all needed information related to the multinomial logistic regression such as AOR; CI,

RESULTS

.Very long: redundancy between illustrations and text. See the revised version...

.Correct as:..... presented in Table 1S (Appendix).

DISCUSSION

.The first sentence must be a recap of the main results. See the corrected version.

.Change ref 7 by 8 in this sentence: In line with Murphy et al. [7],

.You are talking about which results in these sentence: These results are similar to those of Yin et al.

.Add a reference after this sentence: with heavy fines if the vaccine would have become compulsory.

.Change Wilson et al. [42] by Wilson and Wiysonge. [42]

.Delete the section reserved to the Strength of the study.

.In the subsection study limitations, add known and classical information related to surveys: see

REFERENCES

TABLES

.For all tables, please define all used abbreviations (in the bottom of the table, alphabetical order)

Table 1S (Appendix): what is studt's in the title? Is it students? EXPLAIN and correct. Please improve the quality of Table 1S. report only % not numbers?

FIGURES

Figure 1: define all used abbreviations (in the bottom of the title, alphabetical order): SM, COVID-19) and name all the classes 1 to 5.

Figure 2: write class x not classx

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.