

Reviewer 1

I have carefully read and reviewed the paper 'The Influence of Recommendation of Medical and Non-medical Authorities on the Decision to Vaccinate Against Influenza from a Social Vaccinology Perspective: Cross-Sectional, Representative Study of Polish Society' submitted by Tomasz Sobierajski, Piotr Rzymiski and Monika Wanke-Rytt. As I understand it, the aim of this work is to to know the reasons for such a low level of vaccination and to assess the influence of medical and social authorities on the decision to vaccinate against influenza from the perspective of social vaccinology. The author believes that the need to strengthen the authority of physicians and pharmacists regarding influenza vaccination, also in the case of pharmacists in terms of changing the law to allow them to qualify for influenza vaccination.

Although this is a well-researched paper, I think it cannot be recommended for publication before revision. My reasons for this are listed below.

Author's response: We would like to thank the Reviewer for throughout the review of our manuscript, positive feedback towards it, and critical comments, which we followed when revising the manuscript.

1. Some opinions need to be supported by references or data. The authors argue that some authorities are culturally universally recognized (e.g., doctors), while others are personally felt (e.g., friends). It is understandable that a doctor has authority during his or her work, but if friends also have authority, then some people will raise objections. If this view is not true, it will affect the scientific nature of the research design. (Lines 99-101)

Author's response: We have examined the manuscript to detect parts without references to support the statements and added citation to various works when necessary. The following references were added:

- Hughes, M.M.; Reed, C.; Flannery, B.; Garg, S.; Singleton, J.A.; Fry, A.M.; Rolfes, M.A. Projected Population Benefit of Increased Effectiveness and Coverage of Influenza Vaccination on Influenza Burden in the United States. *Clin. Infect. Dis.* 2020, 70, 2496–2502.
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- CDC 2021–2022 Estimated Flu Illnesses, Medical Visits, Hospitalizations, and Deaths Prevented by Flu Vaccination Available online: <https://www.cdc.gov/flu/about/burden-averted/2021-2022.htm> (accessed on 7 May 2023).
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- de Figueiredo, A.; Simas, C.; Larson, H.J. COVID-19 Vaccine Acceptance and Its Socio-Demographic and Emotional Determinants: A Multi-Country Cross-Sectional Study. *Vaccine* 2023, 41, 354–364.
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- Prematunge, C.; Corace, K.; McCarthy, A.; Nair, R.C.; Pugsley, R.; Garber, G. Factors Influencing Pandemic Influenza Vaccination of Healthcare Workers--a Systematic Review. *Vaccine* 2012, 30, 4733–4743.
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- Shen, A.K.; Browne, S.; Srivastava, T.; Michel, J.J.; Tan, A.S.L.; Kornides, M.L. Factors Influencing Parental and Individual COVID-19 Vaccine Decision Making in a Pediatric Network. *Vaccines* 2022, 10, 1277.
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- Quandelacy, T.M.; Viboud, C.; Charu, V.; Lipsitch, M.; Goldstein, E. Age- and Sex-Related Risk Factors for Influenza-Associated Mortality in the United States between 1997-2007. *Am. J. Epidemiol.* 2014, 179, 156–167.
- van der Linden, S.; Roozenbeek, J.; Compton, J. Inoculating against Fake News about COVID-19. *Front. Psychol.* 2020, 11, 566790.
- Rzymiski, P.; Borkowski, L.; Drag, M.; Flisiak, R.; Jemielity, J.; Krajewski, J.; Mastalerz-Migas, A.; Matyja, A.; Pyrc, K.; Simon, K.; et al. The Strategies to Support the COVID-19 Vaccination with Evidence-Based Communication and Tackling Misinformation. *Vaccines (Basel)* 2021, 9, 109.
- Nowak, B.M.; Miedziarek, C.; Pełczyński, S.; Rzymiski, P. Misinformation, Fears and Adherence to Preventive Measures during the Early Phase of COVID-19 Pandemic: A Cross-Sectional Study in Poland. *Int. J. Environ. Res. Public Health* 2021, 18, 12266.
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- Lee, S.K.; Sun, J.; Jang, S.; Connelly, S. Misinformation of COVID-19 Vaccines and Vaccine Hesitancy. *Sci. Rep.* 2022, 12, 13681.
- Kraśnicka, J.; Krajewska-Kuła, E.; Klimaszewska, K.; Cybulski, M.; Guzowski, A.; Kowalewska, B.; Jankowiak, B.; Rolka, H.; Doroszkiewicz, H.; Kuła, W. Mandatory and Recommended Vaccinations in Poland in the Views of Parents. *Hum. Vaccin. Immunother.* 2018, 14, 2884–2893.
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2. The authors propose that individual authorities, not recognized by the public, may also influence one's actions, including those related to preventive health care, such as vaccination. These include friends or family members who can be classified as deontic authorities by their function. In the paper (Reference 22) cited by the author, it is proposed that parents and friends who figure as adolescents' most salient interpersonal relationships, without raising the question of authority. The paper (Reference 22) only studies young people and does not include other age groups. Teenagers (including minors) are easily influenced by parents and

friends. It does not mean that all people are easily influenced by parents and friends, and if so, the influence varies. (Lines 111-114)

Author's response: Thank you for noting it. To balance the previously cited reference, we have added a reference to the study which examined the perception of vaccines among patients hospitalized with severe COVID-19 (mean age: 59 years), which also shows that friends and family play a significant role in such decisions, particularly in vaccine refusal (doi: 10.3390/vaccines10030476).

3. The authors believe that those strongly in favour of vaccination were statistically significantly more likely to be middle-aged and older (over 50) than younger people. However, among the surveyed population, there were 357 people aged 50 and above, accounting for 44.45% of the total population. Therefore, this has a direct impact on the research results, leading to deviations in the author's understanding. (Lines 212-216)

Author's response: Thank you for this comment. However, please note that in Table 2, the results are also presented as %, and one can clearly see that the percentage of strong supporters of vaccination increases with age, while the percentage of strong opponents decreases. This is why we have used five different age groups and compared them. To strengthen the meaning of the description of the results, we have added the following line: *"The rate of strong supporters of vaccination started to increase in individuals aged 35 and older, with the highest rate found in those aged 65 and older (Table 2)".*

4. The authors put forward that the people who enjoy the most considerable authority among respondents when it comes to getting vaccinated against influenza are physicians, followed by other medical professionals, i.e., nurses and pharmacists. (Lines 360--362) The conclusion of this study is consistent with the public's daily cognition. Even without this research, such a conclusion can still be drawn, therefore, the author needs to further explain the value of this study.

Author's response: Thank you for this comment. We have addressed it within the revised Discussion, indicating that the role of physicians as role models for the general public regarding vaccination could be influenced by the COVID-19 pandemic, the spread of misinformation, high activity of anti-vaccine groups. Moreover, we have put this issue in the context of low vaccination rates among Polish physicians, indicating that increasing interest in influenza vaccination in Poland would first require increasing the vaccination rate among physicians, who subsequently would inspire the general public. Several lines discussing it, and referencing associated data, were added.

5. The format of references is not standardized, which needs to be revised.

Author's response: The professional citation manager software was employed in the revised manuscript to order and format the references.

