



Short Communication

Factors associated with intention to receive COVID-19 vaccine among HIV positive patients attending ART clinic

Firomsa Bekele^{a,*}, Ginenus Fekadu^b^a Department of Pharmacy, College of Health Science, Mettu University, Mettu, Ethiopia^b Department of Pharmacy, Institute of Health Science, Wollega University, Nekemte, Ethiopia

Dear editor

We read with great interest the published article of Mesfin Y et al. describing the factors associated with the intention to receive the COVID-19 vaccine among HIV-positive patients attending ART clinics in Southwest Ethiopia. As clinical pharmacy specialists, we appreciate the importance of assessing the COVID-19 vaccine acceptance among highly exposed patients like HIV patients in low-resource settings [1]. In this letter, we suggest the possible risk factors that can affect the patients' acceptance of the COVID-19 vaccine.

Globally, the patient's acceptance of the COVID-19 vaccine can be affected by their perceptions and beliefs. This vaccine hesitancy was more prevalent in low-resource settings including Ethiopia [2]. Additionally, patients' attitude was predictors of the COVID-19 vaccine acceptance in which patients having a negative attitude against vaccination could result in vaccine hesitancy [2,3]. Besides to this, the patients believe that COVID-19 infection can be prevented with a vaccine is a factor that determines the acceptance of COVID-19 vaccine [4].

The author Mesfin Y et al. reported that the probability of the patients taking the COVID-19 vaccine was better among patients presented with co-morbidity. This is due to the fact that chronic patients having comorbidity were more likely to be affected by this virus and carry a high clinical burden from COVID-19 [2].

The implementation of different COVID-19 prevention measures, like quarantine, restricted movement, nationwide lockdowns, hand washing with water and soap, keep respiratory hygiene, and use face-mask could hinder the spread of the pandemic [4]. Patients having good knowledge and practice towards COVID-19 preventive measures had more likely to receive the vaccine as compared to their counterparts [5, 6]. The author also assessed that the patients who had good knowledge of COVID-19 preventive practice were highly intended to receive the vaccine compared with those who had poor knowledge.

Lack of adequate information, higher immunity level, the uncertainty of patients towards the safety and efficacy of the vaccine might be the risk factors towards the vaccine hesitancy [2,7,8]. The COVID-19

vaccine is developed and distributed with the in short time and its unknown long-term side effect has caused patients to hesitant to the vaccine [9]. However, the author did not assess the possible reason for the vaccine hesitancy.

Male patients having HIV were more likely to take the COVID-19 vaccine than females. This is similar to the study done by Bekele F et al. [2]. The author recommends empowering an educational intervention about the COVID-19 vaccine. On top of that, vaccine campaigns should be started to deliver adequate insights about the importance of the COVID-19 vaccine, especially in immune-compromised patients.

Disclosure

The conflict of interest was not reported in this communication.

Provenance and peer review

Not commissioned, externally peer reviewed.

Ethical approval

Not applicable.

Sources of funding

Not applicable.

Consent

Not applicable. No individual person's personal details, images or videos are being used in this study.

Abbreviations: ART, Antiretroviral therapy; COVID, Coronavirus disease; HIV, Human immunodeficiency virus.

* Corresponding author.

E-mail address: firomsabekele21@gmail.com (F. Bekele).

<https://doi.org/10.1016/j.amsu.2022.103435>

Received 4 January 2022; Received in revised form 21 February 2022; Accepted 27 February 2022

Available online 3 March 2022

2049-0801/© 2022 The Authors. Published by Elsevier Ltd on behalf of IJS Publishing Group Ltd. This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Author contribution

FB contributes in the preparation of the communication. GF was participated in revised manuscript. All authors checked and confirmed the final version of the manuscript.

Registration of research studies

Not applicable.

Guarantor

Firomsa Bekele.

Declaration of competing interest

The authors declared that they have no competing interest.

References

- [1] Y. Mesfin, M. Argaw, S. Geze, B.T. Zewdu, Factors associated with intention to receive COVID-19 vaccine among HIV positive patients attending ART clinic in Southwest Ethiopia, *Patient Prefer. Adherence* 15 (2021 Dec 9) 2731–2738, <https://doi.org/10.2147/PPA.S342801>.
- [2] F. Bekele, G. Fekadu, T.F. Wolde, L.W. Bekelcho, Patients' acceptance of COVID-19 vaccine: implications for patients with chronic disease in low-resource settings, *Patient Prefer. Adherence* 15 (2021) 2519.
- [3] M.D. Hawlader, M.L. Rahman, A. Nazir, T. Ara, M.M. Haque, S. Saha, S.Y. Barsha, M. Hossian, K.F. Matin, S.R. Siddiquea, M.U. Rashid, COVID-19 vaccine acceptance in South Asia: a multi-country study, *Int. J. Infect. Dis.* 114 (2021) 1–10.
- [4] G. Berihun, Z. Walle, Berhanu L. et al, Acceptance of COVID-19 vaccine and determinant factors among patients with chronic disease visiting dessie comprehensive specialized hospital, Northeastern Ethiopia, *Patient Prefer. Adherence* (2021) 15, 1795–1805.
- [5] A. Mose, A. Yeshaneh, COVID-19 vaccine acceptance and its associated factors among pregnant women attending antenatal care clinic in Southwest Ethiopia: institutional-based cross-sectional study, *Int. J. Gen. Med.* 14 (2021) 2385.
- [6] A.T. Angelo, D.S. Alemayehu, A.M. Dachew, Health care workers intention to accept COVID-19 vaccine and associated factors in southwestern Ethiopia, 2021, *PLoS One* 16 (9) (2021 Sep 3), e0257109.
- [7] B. Zewude, A. Belachew, Intention to receive the second round of COVID-19 vaccine among healthcare workers in Eastern Ethiopia, *Infect. Drug Resist.* 14 (2021) 3071.
- [8] A. de Figueiredo, H.J. Larson, An exploratory study of the global intent to accept COVID-19 vaccinations, *Commun. Med.* 1 (1) (2021 Sep 9), 1-0.
- [9] B.A. Guangul, G. Georgescu, M. Osman, R. Reece, Z. Derso, et al., Healthcare workers attitude towards SARS-COVID-2 Vaccine, Ethiopia, *Glob J Infect Dis Clin Res* 7 (1) (2021), <https://doi.org/10.17352/2455-5363.000045>, 043-048.
- [1] Y. Mesfin, M. Argaw, S. Geze, B.T. Zewdu, Factors associated with intention to receive COVID-19 vaccine among HIV positive patients attending ART clinic in