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SHORT COMMUNICATION article

An exploration of selected variables as a predictor of COVID-19 vaccination rollouts: A correlational study

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Abstract: Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. The study aimed to determine the variables that would predict the vaccination rollouts. The objective of this study was to determine the acceptance of the COVID-19 vaccine among the general adult population in Libya and assess its determinants. Specifically, it aims to answer the following questions: What are the variables that would predict the vaccination rollouts, in terms of knowledge about the vaccine, exposure to coronavirus 2? What is the respondent's level of acceptance of COVID-19 vaccination? Is there a significant relationship between the predictors of vaccination turnouts and the level of acceptance of COVID-19 vaccination? The findings that the researcher was able to extract from the study were: The frequency and percentage of the Knowledge as a predictor of vaccination turnouts is 94.1% for YES and 5.8% for NO. In terms of exposure to the coronavirus, those who tested positive for COVID-19 yielded a result of 29.4%, and those who tested negative with 70.5%. Detailed analysis of the results reveals that the level of acceptance of respondents to COVID-19 vaccination is 52.9% for YES, they will avail, and 47.0% for NO, they would not want to avail. Both determinants, the knowledge and exposure to coronavirus, yielded a positive, strong relationship with the level of acceptance of COVID-19 vaccination.

Introduction

Coronavirus disease (COVID-19) started in Wuhan City, China, and has currently afflicted almost the entire world. Coronavirus was identified back in the years of 2003 and 2015, named as Severe Acute Respiratory Syndrome-Coronavirus (SARS-CoV) and Middle East Respiratory Syndrome-Coronavirus (MERS-CoV), which were similar to COVID-19 and these exhibited similarities to COVID-19 [1]. These similarities were first reported at the end of December 2019 [2]. Since many cases of the novel COVID-19 first appeared in Wuhan, China, in December 2019, the virus has infected millions worldwide. On January 30, 2020, the World Health Organization (WHO) declared that the outbreak of COVID-19 constituted a Public Health Emergency of International Concern, calling for countries to take urgent and aggressive action against the spread of the virus

[3]. COVID-19 is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus will experience mild to moderate respiratory illness and recover without requiring special treatment. However, some will become seriously ill and require medical attention. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness. The best way to prevent and slow down transmission is to be well-informed about the disease and how the virus spreads. Protect yourself and others from infection by staying at least one meter apart from others, wearing a properly fitted mask, and washing your hands or using an alcohol-based rub frequently [4]. Get vaccinated when it's your turn and follow local guidance [5].

Equitable access to safe and effective vaccines is critical to ending the COVID-19 pandemic, so it is hugely encouraging to see so many vaccines proving and going into development. WHO is working tirelessly with partners to develop, manufacture, and deploy safe and effective vaccines. Safe and effective vaccines are a game-changing tool, but for the foreseeable future, we must continue wearing masks, cleaning our hands, ensuring good ventilation indoors, physically distancing, and avoiding crowds. Being vaccinated does not mean that we can throw caution to the wind and put ourselves and others at risk, particularly because research is still ongoing into how much vaccines protect not only against disease but also against infection and transmission. But it's not vaccines that will stop the pandemic, it's vaccination. We must ensure fair and equitable access to vaccines, and ensure every country receives them and can roll them out to protect their people, starting with the most vulnerable [4]. Vaccines contain weakened or inactive parts of a particular organism (antigen) that triggers an immune response within the body. Newer vaccines contain the blueprint for producing antigens rather than the antigen itself. Regardless of whether the vaccine is made up of the antigen itself or the blueprint so that the body will produce the antigen, this weakened version will not cause the disease in the person receiving the vaccine, but it will prompt their immune system to respond much as it would have on its first reaction to the actual pathogen. Vaccinating not only protects yourself, but also protects those in the community who are unable to be vaccinated. If you can, get vaccinated [5, 6]. Vaccines are a critical tool in the battle against COVID-19, and getting vaccinated is one of the best ways to protect yourself and others from COVID-19. After vaccination, the body is ready to fight the virus if it is later exposed to it, thereby preventing illness. Most people who are infected with SARS-CoV-2, the virus that causes COVID-19, develop an immune response within the first few weeks, but we are still learning how strong and lasting that immune response is, and how it varies between different people. People who have already been infected with SARS-CoV-2 should still get vaccinated unless told otherwise by their health care provider. Even if you've had a previous infection, the vaccine acts as a booster that strengthens the immune response. There have also been some instances of people infected with SARS-CoV-2 a second time, which makes getting vaccinated even more important [7]. COVID-19 vaccines are crucial tools in the pandemic response and protect against severe disease and death. Vaccines provide at least some protection from infection and transmission, but not as much as the protection they provide against serious illness and death. More evidence is needed to determine exactly how well they stop infection and transmission. After being vaccinated, individuals should continue taking simple precautions and get tested if they are sick, even if they've been vaccinated [8].

Vaccines have been a key strategy for improving health outcomes and life expectancy by controlling and preventing infectious diseases, such as smallpox, polio, and plague. Given the elevated morbidity and mortality associated with COVID-19, the development of a safe and effective COVID-19 vaccine is a critical step to halt the pandemic. 61 COVID-19 vaccine candidates were awaiting clinical evaluation, and 172 candidate vaccines were in preclinical evaluation. Nevertheless, misinformation and conspiracy theories surrounding COVID-19 vaccines can highly influence vaccine uptake once available. Hence, to better understand and inform the public

health authorities, the current study sought to assess the acceptance of a potential COVID-19 vaccine and evaluate factors that influence its acceptance among the adult population in Tripoli, Libya [9, 10]. The COVID-19 pandemic continues to impose enormous burdens on morbidity and mortality while severely disrupting societies and economies worldwide [11]. Governments prepare themselves to ensure large-scale, equitable access and distribution of safe and effective COVID-19 vaccines. Overcoming the pandemic will require sufficient health system capacity and effective strategies to enhance trust in and acceptance of vaccines. Concern about vaccine hesitancy is growing worldwide. For decades, vaccines have been a successful measure to eliminate and prevent numerous infections. However, vaccine hesitancy and misinformation act as hurdles in achieving high coverage and community immunity against the infection. In 2015, the WHO Strategic Advisory Group of Experts on Immunization stated vaccine hesitancy as a "delay in acceptance or refusal of vaccination despite the availability of vaccination services". Vaccine hesitancy can differ in form and intensity based on when and where it occurs and what vaccine is involved. Concerns about vaccine hesitancy are growing globally, prompting the WHO to declare it among the top ten health threats in 2019. Governments, public health officials, and advocacy groups must be equipped to address vaccine hesitancy. There is a need to build vaccine literacy to increase vaccine acceptance rates. Besides, misinformation spread through multiple sources could have a considerable impact on the acceptance of a COVID-19 vaccine. Governments and societies must gauge current levels of willingness to receive potentially safe and effective COVID-19 vaccines and identify correlates of vaccine hesitancy and/or acceptance. Intervention models to improve vaccine literacy and acceptance should directly take up community-specific concerns, misconceptions and be sensitive to religious or cultural beliefs. Researchers have recognized effective interventions for building confidence and decreasing vaccine hesitancy in different contexts. Trust in government is highly associated with vaccine acceptance and can contribute to public compliance with recommended actions. Addressing and overcoming vaccine hesitancy requires more than building trust. Clear and consistent effective communication by government officials is central to building public confidence in vaccine programs. This includes explaining how vaccines work, their development, and regulatory approval based on safety and efficacy. Powerful campaigns should also aim to explain the effectiveness of vaccines, the time needed for protection, and the significance of population-wide vaccine coverage to attain community immunity. Inculcating public confidence in regulatory agency reviews of vaccine safety and effectiveness will be imperative. Despite tremendous efforts being made to achieve COVID-19 vaccine coverage, vaccine hesitancy could be a major barrier to its acceptance by the general population. To identify the scope of the problem, the current scoping review aims to explore and understand the rates of acceptance and hesitancy related to the COVID-19 vaccine among the population globally. This could help bridge the knowledge gaps and facilitate the formation of effective strategies to overcome the high levels of hesitancy related to the COVID-19 vaccine, increase its uptake, and mitigate the pandemic, as well as help global stakeholders to conduct COVID-19 vaccination drives and promote vaccine uptake.

Materials and methods

This study employed the descriptive correlational method of research. The respondents were the guests of Attahadi University, Tripoli, Libya, during the World Oral Health Day, where they had their COVID-19 testing done. While participating in the event, some guests were asked about the data needed for the variable of knowledge and their perception as to whether they would avail the vaccine for COVID-19 or not. The other predictor variable, which is their coronavirus exposure, was determined through the result of their rapid PCR test. The convenience or accidental sampling was utilized in this study. The questionnaire was used for the variables of knowledge and the acceptance of the vaccination program, while the exposure to the coronavirus

was obtained through secondary data. After the data was retrieved, it was treated statistically with Pearson's product-moment correlation.

Ethical considerations: This study was approved by the Research Review Board of the University (MJ-071, 2022). To ensure ethical clarity, prior arrangements were made to brief the participants at the World Oral Health Day regarding the nature and purpose of the study and to emphasize that their participation is voluntary. Informed consent was obtained directly from the participants before the commencement of the data collection.

Results

This study showed that the frequency and percentage of the knowledge as a predictor of vaccination turnout is 94.1% for YES and 5.9% for NO. Cursory inspection of the data reflecting the results of frequency and percentage of exposure to the coronavirus, those who were tested POSITIVE for COVID-19 yielded a result of 29.5%, and those tested negative with 70.5%. The level of acceptance of respondents to COVID-19 vaccination reveals that 52.9% YES, they will avail, and 47.0% for NO, they wouldn't want to avail. In this study, a detailed analysis of the data reflecting the results of the frequency and percentage of the level of acceptance of COVID-19 vaccination. Though the results show a higher percentage in the response of "YES," which is 53.0%, it is still worthwhile to note that there is a significant value of 47.0% that responded "NO".

Table 1 shows Pearson's momentum correlation between the knowledge of the respondents on COVID-19 and the acceptance of the COVID-19 vaccine. There was a positive, strong correlation between the two variables, r = 0.78, n = 34, and p = 0.349

Table 1: Correlation between the knowledge of the respondents on COVID-19 and the acceptance of the COVID-19 vaccine

Variables		
Knowledge	Pearson correlation	0.78
	Level of significance	0.349
(X)	N	34
Academic performance	Pearson correlation	0.78
in major nursing subjects	Level of significance	0.349
(Y)	N	34

Table 2 shows Pearson's momentum correlation between the exposure of the respondents to COVID-19 and the acceptance of the COVID-19 vaccine. There was a positive, strong correlation between the two variables, r = 0.89, n = 34, p = 0.349.

Table 2: Correlation between the exposure of the respondents to COVID-19 and the acceptance of the COVID-19 vaccine

Variables		
Exposure to COVID-19	Pearson correlation	0.89
	Level of significance	0.349
(X)	N	34
Academic Performance	Pearson correlation	0.89
in major nursing subjects	Level of significance	0.349
(Y)	N	34

Discussion

This study shows a high percentage result of 94.0% reveals adequate knowledge among the participants. This is the same as the other studies conducted. Most of the participants had adequate knowledge related to COVID-19. Despite adequate knowledge, the attitude was not always positive, thereby necessitating further education to

convey the importance of forming a positive attitude and continuous preventive practice towards reducing contraction and transmission of COVID-19 [12-14]. Findings demonstrated that the respondents have adequate knowledge about COVID-19, including the transmission of the virus through respiratory droplets of infected people and clinical symptoms of the disease. The perceived risk for infection susceptibility was relatively lower than the disease's perceived severity regarding attitudes. The impact of efficacy beliefs on preventive measures was high in personal hygiene and social distancing. Most of the respondents complied with the recommended practices, such as wearing facial masks, practicing hand hygiene, and social distancing to prevent COVID-19 infections [13, 15]. To decrease the adverse effects of COVID-19, there is a need to increase the general public's knowledge so that the spread of the disease can be reduced. Poor understanding of COVID-19 in the general public can result in delayed identification and can be a key factor in the rapid spread of the disease [16].

The current study also shows that most of the respondents tested positive for the coronavirus, which yielded a result of 71.0%. The first case of COVID-19 was identified in Libya on 24/3/2020, and about two months later, the number of reported COVID-19 cases started to increase notably. The outbreak was first prominent in the southern region (Sabha) and then spread to the western and eastern parts of Libya. By 24/12/2020, the reported total number of deaths from COVID-19 reached 1415. There seems to be no published data on the size of the epidemic in Libya. Here, it is estimated that the number of Libyans exposed to COVID-19 is estimated using a COVID-19 mortality-adjusted mathematical model for the spread of infectious diseases. An estimate that 14.0-20.0% of the Libyan population has been exposed to the COVID-19 pandemic. Thus, the risk of spread of COVID-19 infections during the coming months is high, and a considerable number of Libyans, particularly the elderly and people with chronic diseases, should be protected against COVID-19 infection. This is particularly urgent in the light of unofficial reports that the relevant healthcare facilities are under extreme stress [17]. Libya is witnessing an alarming surge in COVID-19 cases in the last two weeks, where infections are at their peak. The National Centre for Disease Control recorded 4,061 new COVID cases on the 18th of July, the highest daily rate since the onset of the pandemic. Libya has surpassed 221,495 new COVID-19 cases since the beginning of the pandemic, as the highly contagious Delta variant persists in the neighbouring countries and most likely is in Libya. The virus is rapidly spreading across Libya with a 27.0% increase in COVID-19 cases in the West, 48.0% in the South, and 50.0% in the East of the country. These numbers are terrifying enough, but the actual number of cases is likely to be much higher due to acute shortages of tests and laboratory capacity. The vaccination rate is low, and the spread is fast. We must be faster in our response. The most important thing we can do to stop the spread of COVID-19 and the variants is to ensure everyone eligible gets vaccinated. Countries with high coverage of two doses of vaccines have been able to drastically reduce the rate of hospitalization and deaths. It is also necessary to follow and abide by preventive measures. Already disrupted by years of instability, the Libyan healthcare system is further challenged by high rates of community transmission and is struggling to curb the rapid spread and to meet the population's needs [18]. An increase in the acceptance of the COVID-19 vaccine among the respondents.

However, despite the increase in percentage of 53.0%, the remaining 47.0% of the pie is worth taking note of. A range of organizations within and beyond the health sector can play a vital role in sharing accurate information about vaccination and its benefits. Almost everyone can play their part by knowing the basics of vaccination and the reliable sources for more details, as well as by openly expressing their enthusiasm for getting vaccinated. Organizations and employers can boost confidence by openly sharing their support for vaccination or personal experience of getting vaccinated. This helps to promote vaccination acceptance as a social norm in the workplace. One of the best ways to address people's concerns about getting vaccinated is to refer them to someone they trust. Remember that these concerns can be emotional for people and touch on

issues outside of science, such as their personal experiences and their perceptions of poor or unfair treatment in the past. Do not overwhelm people with facts and information. Instead, acknowledge their perspectives or experiences and speak to their motivations, not what you think they need to hear. Hence, vaccine hesitancy, described as a delay in acceptance or refusal of vaccination despite the availability of vaccination services, can hamper future COVID-19 vaccination efforts. Currently, little is known about the acceptance of a potential COVID-19 vaccine and factors that influence its acceptance, although such information is essential in planning strategies to increase vaccine acceptability before a vaccine becomes available.

In this study, 53.1% of the participants demonstrated willingness to receive vaccination against COVID-19 once a vaccine is available. Such a level of acceptability is considerably low given the magnitude of the COVID-19 pandemic. Prior estimates suggest that the threshold for COVID-19 herd immunity varies among countries, with a suggested average threshold of 67.0%. The observed acceptance level in the current report indicates an urgent need for public health strategies to increase acceptance of potential COVID-19 vaccines in the general population. 53.1% of the participants were willing to receive vaccination against COVID-19 once a vaccine becomes available, with several factors influencing the level of acceptance. Such findings are of public health importance and should guide public health efforts in increasing acceptance of vaccination against COVID-19 in the population at large. Public health strategies are urgently needed to address the widespread misinformation and conspiracy theories surrounding COVID-19 vaccines. Moreover, transparent communication about vaccine effectiveness and safety will contribute to increasing public trust in future COVID-19 vaccination programs [19]. This study reveals that variables of knowledge and exposure to coronavirus have a significant, strong positive relationship with the level of acceptance of COVID-19 vaccination. During health crises and emergencies, the public needs to practice precautionary behaviours at all times, as the novelty and unpredictability of epidemics may exceed a health system's capability to a significant degree. It provides evidence that knowledge is an essential predictor of attitudes and behaviours, contributing to advancing intervention strategies to promote and sustain the public's precautionary behaviours in the context of the COVID-19 pandemic [16]. To increase precautionary behaviours among the public, health officials and policymakers must promote knowledge and efficacy beliefs. Future interventions and policies should also be developed in a person-cantered approach, targeting vulnerable subgroups, embracing them, and closing the gap of KAP toward COVID-19 [17]. Participants who considered vaccination important for their own health or for the health of the community were more willing to accept vaccination. This suggests that if more people are educated about the importance of vaccination against COVID-19, their willingness to be vaccinated will increase [18]. Therefore, the knowledge, attitude, and practices people possess regarding COVID-19 play a key role in determining a society's readiness to accept behavioural change measures from the health authorities. Measurement of the public's knowledge, attitudes, and practices will help provide a better understanding of COVID-19 and the establishment of health-promoting advertisements and preventive strategies [19, 20]. In multivariable analysis, subjects above 60 years and healthcare workers were more likely to accept the SARS-CoV-2 vaccine. Irrespective of the COVID-19 test result, participants who had previously been tested for COVID-19 were more willing to take the vaccine compared to those who had never been tested. Moreover, participants who were extremely concerned about COVID-19 (re)infection and those who suffered from a chronic disease had higher odds of accepting the SARS-CoV-2 vaccine. Participants who Vaccines 2021, 9, 828 5 of 10 considered vaccination important for their own health or for the health of the community were more willing to accept vaccination, compared to those who considered vaccination not or less important. Globally, the average rate of vaccine hesitancy in April 2020 was 21.0%, which increased to 36.0% in July 2020 and later declined to 16.0% in October 2020. Large variability in vaccine acceptance and high vaccine hesitancy can

influence the efforts to eliminate COVID-19. Addressing the barriers and facilitators of vaccines will be crucial in implementing effective and tailored interventions to attain maximum vaccine coverage [19, 21].

Conclusion: Most of the respondents are knowledgeable about COVID-19, and among the respondents who were tested for COVID-19, a negative result was obtained. Both determinants were proven to be predictors of the level of acceptance of COVID-19 vaccination. The finding can be considered as baseline data in the policy-making procedures of the health sector in its efforts to provide programs in addressing the effects of the pandemic in the Libyan populace.

References

1. Chauhan S. Comprehensive review of coronavirus disease 2019 (COVID-19). Biomedical Journal. 2020; 43(4): 334-340. doi: 10.1016/j.bj.2020.05.023
2. Caldaria A, Conforti C, Di Meo N, Dianzani C, Jafferany M, Lotti T, Zalaudek I, Giuffrida R. COVID-19 and SARS: Differences and similarities. Dermatologic Therapy. 2020; 33(4): e13395. doi: 10.1111/dth.13395
3. Eurosurveillance editorial team. Note from the editors: The World Health Organization declares novel coronavirus (2019-nCoV) a sixth public health emergency of international concern. Eurosurveillance. 2020; 25(5): 200131e. doi: 10.2807/1560-7917.ES.2020.25.5.200131e
4. Neser FR, Ibsheesh FA, Alhaj AM, Alghazal KA, Ibrahem KM, et al. Bouder OM. Knowledge, performance, and awareness towards the use of disinfectant and hand sanitizers during the COVID-19 pandemic: A questionnaire-based survey. Mediterranean Journal of Pharmacy and Pharmaceutical Sciences. 2024; 4(2): 55-63. doi: 10.5281/zenodo.11479336
5. Feikin DR, Higdon MM, Abu-Raddad LJ, Andrews N, Araos R, Goldberg Y, et al. Duration of effectiveness of vaccines against SARS-CoV-2 infection and COVID-19 disease: results of a systematic review and meta-regression. Lancet. 2022; 399(10328): 924-944. doi: 10.1016/S0140-6736(22)00152-0. Erratum in: The Lancet. 2024; 404(10455): e3. doi: 10.1016/S0140-6736(22)00428-7. Erratum in: The Lancet. 2023; 401(10377): 644. doi: 10.1016/S0140-6736(23)00331-8
6. Mbenah AJ, Magwe EA. Vaccination coverage and timeliness among children aged 12-23 months in Kongwa District, Dodoma, Tanzania. Mediterranean Journal of Pharmacy and Pharmaceutical Sciences. 2025; 5(4): 1-10. doi: 10.5281/zenodo.17220401
7. Nainu F, Abidin RS, Bahar MA, Frediansyah A, Emran TB, Rabaan AA, et al. SARS-CoV-2 reinfection and implications for vaccine development. Human Vaccines and Immunotherapeutics. 2020; 16(12): 3061-3073. doi: 10.1080/21645515.2020.1830683
8. Mohseni Afshar Z, Barary M, Hosseinzadeh R, Alijanpour A, Hosseinzadeh D, Ebrahimpour S, et al. Breakthrough SARS-CoV-2 infections after vaccination: A critical review. Human Vaccines and Immuno-therapeutics. 2022; 18(5): 2051412. doi: 10.1080/21645515.2022.2051412
9. Alhaddad FE, Abuleid KM. Evaluation of adverse effects of AstraZeneca COVID-19 vaccine after the first dose in Libyan adults: a cross-sectional study. Mediterranean Journal of Pharmacy and Pharmaceutical Sciences. 2022; 2(4): 65-69. doi: 10.5281/zenodo.7479778
10. Alzawam MS, Hasan FO. Factors associated with the inflammatory immune response induced by COVID-19 vaccines among adults. Mediterranean Journal of Pharmacy and Pharmaceutical Sciences. 2023; 3(1): 12-18. doi: 10.5281/zenodo.7771333
11. Omran EAA, Amal MA, Alshebani AMA, Almajdoub OH. Potential risk factors for mortality in patients with COVID-19: A retrospective study. Mediterranean Journal of Pharmacy and Pharmaceutical Sciences. 2022; 2(1): 37-43. doi: 10.5281/zenodo.6399474
12. Paul SK. Assessment of knowledge and attitude of adverse drug reactions among healthcare professionals in Bangladesh. Mediterranean Journal of Pharmacy and Pharmaceutical Sciences. 2025; 5(2): 70-78. doi: 10.5281/zenodo.15275065
13. Sharif SI, Sharif RS, Jabri RA, Shriki RA, Abduelkarem AR. Evaluation of students' perception and attitudes toward switching from in-class to online teaching in the era of COVID-19. Mediterranean Journal of Pharmacy and Pharmaceutical Sciences. 2024; 4(1): 12-21. doi: 10.5281/zenodo.10565075
14. Alssageer MA, Khattab BF, Bakouri AH. Physicians' attitudes, expectations, and experiences about clinical pharmacists and the barriers they face in developing a collaborative relationship with them. Mediterranean Journal of Pharmacy and Pharmaceutical Sciences. 2024; 4 (3): 27-38. doi: 10.5281/zenodo.13324209

15. De Francia S, Chiara F, Allegra S. COVID-19 Prevention and Treatment. Life (Basel). 2023; 13(3): 834. doi: 10.3390/life13030834
16. Brown KA, Buchan SA, Chan AK, Costa A, Daneman N, Garber G, et al. Association between delayed outbreak identification and SARS-CoV-2 infection and mortality among long-term care home residents, Ontario, Canada, March to November 2020: A cohort study. Eurosurveillance. 2024; 29(41): 2300719. doi: 10.2807/1560-7917
17. Tana C, Moffa L, Falasca K, Vecchiet J, Tana M, Mantini C, Ricci F, Ticinesi A, Meschi T, Cipollone F, Giamberardino MA. Approach to COVID-19 in older adults and indications for improving the outcomes. Annals of Medicine. 2023; 55(2): 2265298. doi: 10.1080/07853890.2023.2265298
18. Chen H, Shi L, Zhang Y, Wang X, Jiao J, Yang M, Sun G. Response to the COVID-19 pandemic: Comparison of strategies in six countries. Frontiers in Public Health. 2021; 9: 708496. doi: 10.3389/fpubh.2021.708496
19. Taeb ST, Alamory MM, Alamamy ZM, Nafae SSH. Assessing the readiness of community pharmacists in Libya for vaccine administration: Barriers and opportunities. Mediterranean Journal of Pharmacy and Pharmaceutical Sciences. 2025; 5(1): 65-74. doi: 10.5281/zenodo.14695845
20. Fisker AB, Thysen SM. Implementation and assessment of vaccination programmes: the importance of vaccination sequence for overall health outcomes. Human Vaccines and Immunotherapeutics. 2018; 14(12): 2900-2903. doi: 10.1080/21645515.2018.1496771
21. Godbole S, Diwan V, Das S, Reddy MM, Kalyanasundaram M, Rajendran D, et al. Facilitators and barriers to the uptake of COVID-19 vaccine precaution dose among the adult population: qualitative analysis across six different states of India. Frontiers in Public Health. 2024; 11: 1293600. doi: 10.3389/fpubh.2023.1293600

Author contribution: EAB, MCA-R & NAG conceived and designed the study and contributed to data analysis. All authors contributed to collecting data. AE & NMA contributed to data analysis. MCA performed the analysis and interpreted the data. All authors contributed to drafting the manuscript. All authors approved the final version of the manuscript and agreed to be accountable for its contents.
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دراسة استكشافية لمتغيرات مختارة كعوامل تنبؤية لتوسيع نطاق التطعيم ضد كوفيد-19:

دراسة ارتباطية

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ملخص: مرض فيروس كورونا (كوفيد-19) هو مرض معدٍ يسببه فيروس سارس-كوف-2. هدفت هذه الدراسة إلى تحديد المتغيرات التي تتنبأ بمعدلات الإقبال على التطعيم. وكان الهدف تحديد مدى قبول لقاح كوفيد-19 بين عامة السكان البالغين في ليبيا، وتقييم العوامل المؤثرة فيه. وعلى وجه التحديد، سعت الدراسة للإجابة عن الأسئلة التالية: ما هي المتغيرات التي تتنبأ بمعدلات الإقبال على التطعيم، من حيث المعرفة باللقاح والتعرض لفيروس كورونا 2؟ ما هو مستوى قبول المستجيبين لتطعيم كوفيد-19؟ هل توجد علاقة ذات دلالة إحصائية بين العوامل المؤثرة في معدلات الإقبال على التطعيم ومستوى قبول لقاح كوفيد-19؟ وقد توصل الباحث إلى النتائج التالية: بلغت نسبة المعرفة كعامل مؤثر في معدلات الإقبال على التطعيم 94.1% للإجابة بنعم، و5.8% للإجابة بلا. أما فيما يتعلق بالتعرض لفيروس كورونا، فقد بلغت نسبة من كانت نتائج فحوصاتهم إيجابية لكوفيد-19 29.4%، بينما بلغت نسبة من كانت نتائج فحوصاتهم سلبية 70.5%. أظهر تحليلٌ مُفصّلٌ للنتائج أن نسبة قبول المستجيبين لتطعيم كوفيد-19 بلغت 52.9% لمن أجابوا بنعم، و47.0% لمن أجابوا بلا. وقد أظهر كلٌّ من عاملي المعرفة والتعرض لفيروس كورونا علاقةً إيجابيةً قويةً بمستوى قبول التطعيم.